

Cities of the Ancient World

Course Guidebook

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Cities of the Ancient World

Scope:

This course tackles a number of large questions about cities: why they were founded in the first place; what they meant to their inhabitants; how their forms reflect the social, political, and religious structures of their societies; and what aspects led to the success or failure of particular cities.

We start with the very origins of cities back in the Neolithic, when human culture underwent a startling series of revolutionary changes. One such change was the Agricultural Revolution, with the domestication of plants and animals and a shift in survival strategies from hunting and gathering to farming and animal husbandry. Simultaneous with that was the Urban Revolution, the founding of cities. We discuss the current thinking on these revolutions in human existence and their relationship. Much of that discussion takes place in the context of the earliest city, Çatalhöyük, and a second Neolithic foundation, Jericho. Both of these also provide material to explore the role of religion in the very earliest communities, to ask its role in city formation, and to explore the place of religious structures in city identity. Burial practices at the two cities also illuminate early ideas of property ownership and the definition of the family home.

In the Bronze Age, cities grew most rapidly in civilizations founded in the great river valleys, from the Nile in Egypt, to the Euphrates in Mesopotamia, to the Indus in modern Pakistan and India. In these cities made of mud, we can trace elements of domestic life and civic spaces. Three of the cities, Mohenjo-daro in the Indus Valley and Kahun and Deir el-Medina in Egypt, have no recognizable public buildings. Yet the reasons for that negative evidence for civic life differ wildly, as do the structures of these societies. At Deir el-Medina, we encounter some of the oldest conclusive evidence for private enterprise in an ancient city. We also begin to see how social organization is reflected in city formation. The Sumerian city of Uruk, the first megacity in world history, provides the model for the monumentalization of religious structures and their integration in the civic

space and government of the city. Finally, in the last of the Bronze Age mud-brick cities we will discuss, Amarna in Egypt, we are able to analyze city design as a deliberate means of changing the social structure of Egyptian society. This revolutionary city takes the lessons of Uruk on religion in the service of the state and develops them to reinforce the rule of the pharaoh, Akhenaten. Here, we also introduce the concept of the house as both an economic unit and a domestic space, an important indicator of the role of the house in the ancient city that we examine in Akrotiri, Athens, and Olynthus.

In the four Mediterranean Bronze Age cities of Knossos, Akrotiri, Mycenae, and Tiryns, regular stone architecture makes an appearance. These cities, although they arise from different cultures, share some characteristics in common; we will discuss the idea and mechanisms of the spread of culture across the eastern Mediterranean. The theme of the role of religion continues to be an important one, and the size and placement of religious structures and their consequent meanings are debated with material from Knossos, Akrotiri, and Mycenae and comparisons back to Çatalhöyük. Mycenae and Tiryns are contrasted with Uruk in their dedication of the high ground in the community, not to the gods, but to the king in the placement of his palace complex. This represents a heretofore unprecedented shift in the focus of urban design.

Throughout the Neolithic and Bronze ages, it is possible to point out changes in urban forms, but the notion of “progress” in urban design—that is, reactions to what had come immediately before—is only truly visible with the multiple Greek foundations. We will examine a series of Greek cities—beginning with Athens in the 5th century B.C.; followed by Miletus, Olynthus, and Alexandria; and culminating at Pergamon—to illustrate what can be seen as progress in urban design. Athens in the 5th century has interesting correspondences to Uruk and Amarna. But at Miletus, a dramatic change in Greek urban design, Hippodamian planning, was invented and came to dominate the layout of many Greek and Roman cities with its variation of orthogonal planning. Inevitably, a new model of city design emerged that was anti-Hippodamian; the reasons for that are explored in one of the best examples of it, Pergamon.

The examination of a number of Roman cities introduces in detail the issues of the benefits and challenges of urban life, particularly in the city of Rome itself. We also see remarkable variations in urban life in the Roman Empire, from Ostia in Italy to Karanis in Egypt. Rather than the standardized experience one might expect, we see regional variation and cultural identities that differ dramatically even across Roman North Africa.

Finally, the last great city foundation of antiquity, Constantinople, encourages us to look backwards and chart its influences from the past and to look forward to its role as the model for the Middle Ages. ■

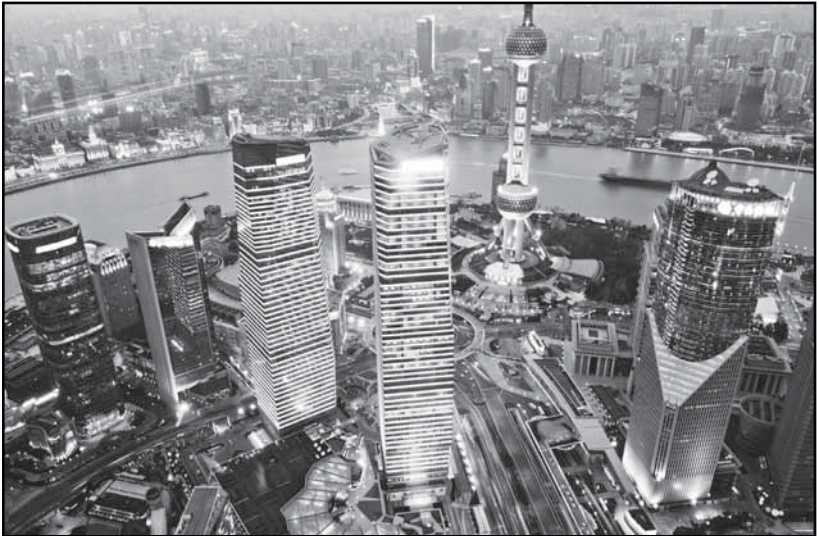
The Lure of the City

Lecture 1

In the 21st century, for the first time in human history, more people in the world are living in cities than are not; we have become a planet of city dwellers. Although cities have long been vital to humanity, city living is quite different from the way most people have lived for the past 11,000 years of human civilization and completely different from the way anyone lived before that. What draws us to cities? How did cities first come about? And why are they organized as they are? In this course, we'll look for answers to those questions by exploring some of the earliest cities ever built.

An Introduction to Cities

- To look for the origins of the city, we need to define what a city is. For our purposes, we will use a fairly broad definition: A city is a conglomeration of people and buildings grouped together to serve as a political, cultural, or economic center.
- In this course, we will look at a range of ancient cities, from the Indus Valley in the east to Algeria in the west; from small cities of just a few thousand people to teeming imperial capitals. Each has been carefully selected because it provides a number of significant lessons, some intriguing stories, and in some cases, inhabitants who don't seem all that different from people we might meet in cities today.
- Cities represent a wealth of ingenuity. Consider the critical inventions and ideas that have been developed for cities or that are simply essential for us to live in them as we do: city blocks, crosswalks, water supply and drainage systems, electricity, traffic lights, public transportation, and more. Note, too, the interdependence of these innovations. Truly, the fact that so many cities function with so few major calamities, day after day and year after year, is a human triumph.



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Shanghai, the largest city in the world in 2014, is a model of the worldwide trend in urbanization.

- But cities aren't always kind to their inhabitants. For most of the past 11,000 years that we've had cities, just living in a city could take 5 to 10 years off one's life compared to living a rural or suburban existence. That demographic trend has been reversed only in the 21st century.

The Neolithic Revolution

- Cities seem to have come about at a time in history when a number of other radical changes in human ways of life were taking place. Collectively, these changes are referred to as the Neolithic Revolution, which began around 9000 B.C.
- The Neolithic Revolution included not just the Urban Revolution, or the creation of cities, but also the Agricultural Revolution, the movement from hunting and gathering to farming crops and domesticating animals. Other significant social, political, environmental, and religious changes took place, as well.

Archaeologists are certain that these changes are all related but disagree on exactly how.

- The original mode of human life, hunting and gathering, involved constant movement by small groups of people; thus, it fundamentally resisted the development of cities.
- Agriculture, in contrast, requires settling down in one place. But did the development of the ability to raise crops and livestock lead people to build cities, or did people first have a desire to settle down that led them to create new ways of raising and growing food to make that possible?
- Tied up with the Neolithic Revolution is the development of the components of urban life that we observe in early cities. The Urban Revolution is defined as introducing six key components to human civilization: division of labor, development of classes, economies based on trade, monumental architecture, creation of political and religious leaders, and writing systems. But did all those develop before, while, or after the first city was established?

New Evidence for the Origins of Cities

- Finds made only since the last years of the 20th century have dramatically altered our thinking about the founding and growth of cities and may have finally answered the question of why people originally created cities. The extraordinary conclusion, although still tentative, is that religious beliefs and needs were the original drivers for urban living.
- Much of the evidence for what motivated people to found cities comes from sites in modern Turkey, an area called Anatolia or Asia Minor in antiquity. Excavations there beginning in 1996 have revealed what is thought to be the oldest monumental religious structure in world history at Göbekli Tepe.
 - This is a huge, apparently open-air hilltop temple composed of stacked colossal stones shaped like those at Stonehenge but at least 6,000 years older.

- Begun around 9000 B.C., it shows that religion was the focus of a tremendous amount of communal labor. Given the scale of the temple—composed of at least 200 colossal stones—it is believed that the work was carried out there by people of more than one kin group, a pattern that is repeated in later cities, such as Jericho and Uruk.
- We don't know where the builders of the temple at Göbekli Tepe lived, but it's relatively close to the site of the world's oldest known city, Çatalhöyük. The proximity of these two sites, as well as correspondences between the design and decoration of the temple and that of Neolithic shrines at Çatalhöyük, suggests that religious rituals and their needs were central in the founding of cities. Indeed, Çatalhöyük shows us that even before cities had streets, open areas, or public buildings, they had shrines.
- According to recent theories, the building of spaces for shared rituals is what caused people to begin to gather in cities. Then, perhaps, an increasingly sedentary population that expanded up to the carrying capacity of the local environment required more food (possibly for religious sacrifice) than could be gathered or hunted. Following this sequence of events, agriculture developed as a means of supporting the decision to transition to a sedentary society and allowed for greater population density than had previously been possible.

Benefits of Cities

- The Greek philosopher Aristotle said that only in cities could people achieve the good life. The much older Sumerian Epic of Gilgamesh goes further, saying that men need to live in cities or they aren't fully men. From early times, cities show us the power of human cooperation—a key reason for living in cities.
 - The desire for monumental construction began to shape cities by at least 6000 B.C., as we'll see at Jericho, and building on a large scale simply wouldn't have been possible without large numbers of people working together.

- We also can't ignore the value of cooperation and communal living for safety and mutual defense.
- Some other, perhaps less obvious, benefits of city life that we'll explore include the cultural identity, trading opportunities, and contacts they afford.
 - Cultural identity is a projection of one's culture that includes language spoken, religious activity, ethnic group, political forms, and material culture. Inhabitants in a city are more likely than those in the countryside to encounter new ideas, ways of life, and material possessions that shape cultural identity.
 - Ancient cities facilitated trade and contacts as nomadic existence never could. People living in one place with labor specialization needed more raw materials for arts and crafts than nomads did. Thus, cities created a need for trade and brought people from distant lands into contact with one another for that purpose.
- As people began to flock to cities, it seems clear that they soon began to be transformed by them. Cities are places where individual identity is complex. One is still a member of a family, but in a city, a person is also of a place, defined, in some ways, by location. Cities brought about a new way of considering personal identity that was not found in hunter-gatherer groups; people became members of communities, and eventually, that identity overcame family.

Ancient and Modern Cities

- Some aspects of ancient city life may strike you as unfamiliar or counterintuitive. For example, ancient houses were both economic and residential centers, and parts of them were often used as workshops or stores that were open to the public. Because ancient cities almost never had zoning laws, industrial activity sometimes took place in otherwise residential areas.
- But some cities, such as Miletus, located in what is today Turkey, seem so familiar that we instantly draw connections with modern

cities. Miletus introduced the concept of city blocks and single-use districts to Greek cities. The city has a layout comparable to ones we can find in every state and, indeed, throughout much of the world.

- The invention of regular blocks and right-angled streets, though it seems obvious and natural to us, is anything but. There is nothing natural about dividing an irregular, organic landscape into a series of parallel and right-angled lines.
- *Orthogonal planning*—the use of right-angled roads to create blocks—involves imposing a regular order on nature, and the instinct to do that is human. The manifestation of it in Miletus has been credited to Hippodamus in the 5th century B.C.
- Orthogonal planning wasn't used in the same way everywhere in the ancient world. At the Egyptian city of Kahun, for example, it was used as a means of social control; long blocks of poor workers' houses were kept behind walls within a district. As we'll see, an examination of city planning also enables us to analyze the social, religious, political, and economic life of a community.
- In this course, we will explore ancient life in all its richness—not just the buildings. In Athens, for example, we will learn about the religious character of the city from its magnificent temples, but archaeological finds will also enable us to follow the lives of real people, from lower-class citizens to well-known elites. Most significantly, we will examine spaces where these groups interacted. Such spaces can teach us how city dwellers have always engaged the urban landscape in ways that allowed them to thrive.
- As we'll see throughout this course, cities reflect the social, political, and religious structures and values of the cultures that built them. They provide the best evidence for how people lived their daily lives in ancient civilizations across the world, and they embody the sometimes familiar and sometimes utterly strange forms that ancient societies took.

Suggested Reading

Knox and McCarthy, *Urbanization*.

Questions to Consider

1. In what ways do modern decisions to live in or move to a city differ from ancient ones? How did the decisions to found the first cities reflect motives we still encounter in our cities?
2. How have recent discoveries caused archaeologists to reevaluate the relationship between the Urban Revolution and the Agricultural Revolution? What do you think of the notion that religion drove both? Do you find it to be compelling?

Çatalhöyük—First Experiment in Urban Living

Lecture 2

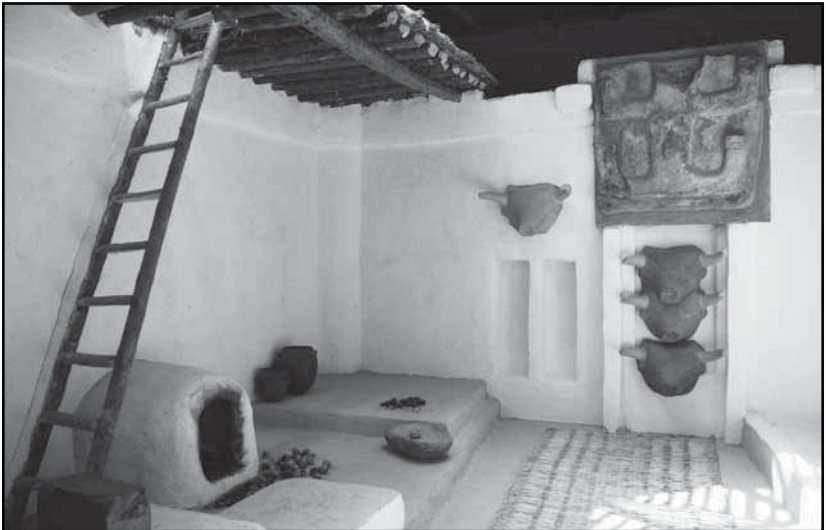
Çatalhöyük is the only city in this course whose ancient name we do not know. Its modern name means “fork mound” or “forked mound” in Turkish, an accurate description of its location in a low, hilly area in south-central Turkey. Çatalhöyük is a Neolithic settlement and serves as important evidence for the origins of urban development. What motivated people to live in such close proximity and in such large numbers for the first time? In the case of Çatalhöyük, the answer seems to be not defense, or agriculture, or the rise of a great man but the needs of people to build, maintain, and stay in proximity to the shrines of their religion.

Overview of Çatalhöyük

- Çatalhöyük is a site of about 30 acres that represents the oldest known city. At its height, just after 6000 B.C., it was occupied by as many as 8,000 people. Founded on a small mound, the city gradually got higher as succeeding levels were built on top of previously occupied but destroyed layers. This pattern of building is standard across southwest Asia, resulting in a hill or mound called a *tell*.
- It is notable that Çatalhöyük is not in one of the great river valleys, nor is it near the sea or even amidst fertile agricultural lands. It seems not to have been founded for trade, agriculture, or defense.
- Only about 5 percent of the site has been excavated, but what has been revealed is a series of mud-brick and timber houses, all built together without common walls. There are no streets, public buildings, or common areas; no defensive wall; and no doors that open to the outside. None of the exterior walls is fortified or heavier than the interior walls. Instead of concern for outside attackers, Çatalhöyük preserves the earliest evidence of family houses and the critical role of religion in defining a culture and a city.

Houses in Çatalhöyük

- The family houses of Çatalhöyük were constructed of timber framing with mud-brick walls and floors and heavily plastered wood and reed flat roofs. They were built in groups clustered around courtyards.
- The houses did not share walls but were built so close to each other that it was impossible to pass between them. Perhaps as a result of that close construction, the houses do not have doors. Ladders and stairs were used to reach the roofs, which provided access into the houses. It's thought that the roofs of the houses provided the paths and sidewalks to traverse the community.
- The average Çatalhöyük house was about 30 feet by 20 feet and divided into two or three rooms, the largest about 20 feet square. The mud-brick walls were plastered on the interior, and some were decorated with murals. Some of the rooms with the most elaborate murals are thought to have been ritual spaces.



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The platform rooms in Çatalhöyük, hung with bull horns, were undoubtedly religious shrines, probably serving clans or kinship groups.

- The largest of the rooms generally contain platforms that were also plastered. Under many of these, excavators have found burials, thought to be the remains of family members.
- The small rooms in these houses generally had an oven and areas for preparing meals and storing food. The individual houses are thought to be family homes, perhaps for nuclear families or some form of extended family.
- The finds in Çatalhöyük tell us a great deal about the lives of these people. We know that they ate wheat, lentils, beans, cereals, and tubers, as well as sheep and goats, which they herded, and wild deer, cattle, and horses, which they hunted. They worked a number of natural resources, such as wood, bone, obsidian, clay, and wool, into tools, household objects, and items of dress and adornment.

Burials and Wall Paintings

- As mentioned earlier, burials have been found under the floors of houses in Çatalhöyük—sometimes as many as 60 under one house. A number of the bodies in these burials are headless.
- The people of Çatalhöyük may have practiced *exarnation*, that is, exposing the body before burial so that natural forces could remove the soft tissues. The remains were then buried before the connective tissue failed, so that the body was still articulated. Some wall paintings show headless bodies on the ground with large birds flying around them, probably carrion birds.
- The heads are clearly treated separately, perhaps as objects for ancestor worship but perhaps as territorial or property markers. The plastered skulls in some cases had their features restored in plaster, and some of these were painted with ochre, a red pigment thought to be symbolic of rebirth. This reinforces the notion that these were the skulls of ancestors, not trophy skulls.

- What is the meaning of the spaces with elaborate wall paintings? Are they public spaces; gathering spaces for a family, cult, or clan; or high-status spaces restricted to elite members of society?
 - One such space shows what appears to be the first cityscape in world history. It seems to show Çatalhöyük itself as a series of blocks; in the distance is a mountain with two peaks, just as the city was in real life in circa 6000 B.C. The walls of this house were also hung with life-size plaster heads of bulls with actual horns.
 - No scholars of the period dispute the conclusion that such rooms were religious shrines, probably serving a clan or extended-family kinship group. The sheer number and complex design of these platform rooms is thought to have motivated the creation of the settlement. More people, particularly specialists in various arts and crafts, would have been needed to create these elaborately decorated spaces.

A “Revolution of Symbols”

- Ian Hodder, the excavator of Çatalhöyük, has argued that the Urban Revolution here represents preceded the Agricultural Revolution. He further argues that the Neolithic Revolution was the result of a revolutionary change in human psychology (some would say in human evolution, resulting in a change in the human brain) and, therefore, a “revolution of symbols.” Hodder concludes that the human need for ritual spaces drove the creation of cities. People began to live surrounding these spaces for shared community rituals.
- Thus, the theory of the origin of cities, as outlined by Hodder and shown by Çatalhöyük, is as follows: First, people—probably in clan groups—created settlements for the purpose of building temples and sacrificing to the gods; then, agriculture developed.
 - Göbekli Tepe, also in southern Turkey and contemporary to Çatalhöyük, is the earliest known monumental temple. Archaeologists cite its proximity to the city and its contemporary development as support for the argument that religious construction drove Neolithic patterns of urban development.

- For this theory, Çatalhöyük presents evidence that is largely the elimination of other options: defense, agriculture, and trade. The site and geography argue against all these purposes, while the shrines demonstrate the emphasis on religion in the community.
- The subjects of some of the murals and plaster reliefs seem to focus on humans interacting with the natural world. Men hunt wild bulls and deer, while leopards are found with female figures, thought to represent goddesses.
- One of the classic components of the Neolithic Revolution—domestication of animals for religious reasons—may be important for Çatalhöyük. The theory is that as people settled in one area, they found that they needed more animals for sacrifice than the local environment provided and, thus, began to domesticate their own. The images of wild animals seem to show that the founding and growth of the city preceded the domestication of animals, providing evidence that the religion theory of the origins of cities may be correct.
- Religious spaces are critical to community identity and may represent the only shared space, indicating their importance in the community; their role, perhaps, as shrines for particular kinship groups; and possibly the reason the city was built in the first place. The extensive use of clay to model the reliefs and cattle heads may explain the distance of the city from the crop fields, which were several kilometers away.
- The fact that the shrines are the only known communal spaces has led to a number of questions about the political structure of Çatalhöyük. No public buildings per se have been excavated or identified. It is possible that the individuals who supervised ritual at the shrines also made civic decisions. Çatalhöyük may represent a transitional stage between kinship hunter-gatherer groups and full civic officers.

The Mother Goddess

- Both James Mellaart, who discovered Çatalhöyük, and Ian Hodder believe in the centrality of religion to the people of Çatalhöyük. Based on the large number of female figures found at the site, they believe that the primary worship was of a mother goddess. One significant female figurine Mellaart discovered in a grain bin depicts a corpulent seated woman.
- The emphasis on her obesity is thought to be an indicator of her role as a goddess of prosperity and abundance, an attribute found on later figures that are intended to convey that power. If so, then the find spot in the grain bin might have been a deliberate placement of the figure to guard that critical area for the prosperity of the house. It is also possible that the figurine was designed to appear pregnant.
- Some scholars see this figure as the earliest manifestation of Potnia Theron, the Mistress of the Beasts. This is the goddess whose identity is later conflated with that of the Greek goddess of hunters, Artemis.
- Other scholars think it more likely that she is an early manifestation of Cybele/Magna Mater, a mother goddess who originated in Anatolia. Her iconography regularly features the goddess sitting in a throne flanked by lions, a pattern that continued for thousands of years. The figurine from Çatalhöyük may extend that tradition back even further.

Conclusions about Çatalhöyük

- Whatever the identity of the goddess figure, scholars of the city agree that religion played a key role in the lives of its inhabitants. In fact, religion may have been the factor that drove the creation of this unique urban form as two or more kin groups came together to create shrines.
- If this conclusion is true, it suggests that initially, Neolithic religion was family based and that we might be able to map various family groups at Çatalhöyük by examining the proximity and access of their houses to the shrines in their “neighborhoods.” Furthermore,

the burials that occur under houses likely indicate ancestor worship and, perhaps, the notion of private property already established in the first urban environment.

- In addition, if the excavators are correct, we see at Çatalhöyük evidence for the rise of cities predating the rise of agriculture. As we examine later cities in the ancient world, we'll see that many rely on religion to a great extent to define their urban landscapes, and some create urban forms that seem to be distant echoes of the first city, Çatalhöyük.

Suggested Reading

Çatalhöyük, <http://www.catalhoyuk.com/>.

Questions to Consider

1. In what ways does Çatalhöyük differ from later cities or a modern city? What elements of civic life are missing, and what can we conclude about social and political life from those missing elements?
2. The religious spaces of Çatalhöyük are remarkable as the first urban shrines preserved. What do they tell us about religious belief, ritual, and the organization of worship in the Neolithic Age?

Jericho and Its Walls

Lecture 3

Spanning the Neolithic period (ca. 10,000 B.C.–ca. 4000 B.C.) and the Bronze Age (3300–1200 B.C.), Jericho preserves a unique moment in the development of cities: the earliest discovered walled city in human history. The massive Neolithic ditch, wall, and tower were built by the first community on the site and used by later groups, as well. This was the first large-scale communal labor known in history and may have been among the first of such massive works requiring cooperative labor. The use of cooperative labor on a scale larger than a kinship group—a clan or extended family—is a defining feature of the ancient city.

Overview of Jericho

- In the Jordan Valley, Jericho sits between Mount Nebo in the east and the Central Mountains in the west. The Dead Sea lies to the south. The city was able to thrive in this desert only because of the natural irrigation from underground tributaries that flowed from the Central Mountains to the Jordan River, 4 miles to the west. These tributaries fed the oasis that allowed Jericho to flourish.
- Another feature of the city's success is its elevation. At about 800 feet below sea level, it is one of the lowest cities in the world and closer to the critical water table. This feature made agriculture and the domestication of animals possible here, probably earlier than in any other area in the region.
- Jericho's position in the landscape meant that it was at something of a regional crossroads, along trade routes perhaps dating back to the Neolithic period. Cities to the south, including Jerusalem and Bethlehem, and to the north, such as Beth-shan and Nazareth, were within easy reach of Jericho. Given its oasis, Jericho was a natural stopping place between all these points.

- Furthermore, the mountains to the east and west, natural defenses that rose more than a mile in height, also screened the city from invasion. Jericho's natural resources, position, and defense made it a key to controlling the region and a focus for trade.
- Jericho is a site referred to as a *tell*, meaning "mound." The mound is the result of millennia of mud-brick architecture that collapsed and was leveled, with new buildings then constructed on top of the old. Gradually, occupation layers built up, and the mound formed. This tell was almost continuously occupied from before 9000 B.C. to perhaps 1400 B.C. There is also a 13-foot-thick deposit of undated material from before 9000 B.C.; thus, circa 9400 is the presumed foundation date.
- Radiocarbon tests on material from the site date the earliest phases of large-scale construction in Jericho to the period of 8500 to 7370 B.C. Even at this early date, the city sprawled over an area of almost 10 acres, or about 425,000 square feet. A large stone wall and a ditch surrounded the entire city. At least one large round stone tower was built, as well.
- Agriculture included grains, such as wheat and barley, as well as peas and beans. The remains of gazelle, cattle, boar, sheep, and goat have been found from the Neolithic phases. The animals may have been domesticated, but the evidence here is scanty. Typically, we expect sheep and goats to be domesticated first, followed by pigs and cattle. But Jericho may not fit that model.

The Round Tower

- The round tower at Jericho is one of mankind's earliest works of stone, and it seems to be completely unprecedented in scale or design. It stands 28 feet high and 30 feet in diameter at the base. The walls are about 5 feet thick. The interior of the tower contains a staircase of 22 steps leading up to the roof. When first discovered, the tower was immediately associated with the story of Joshua, but later excavations demonstrated that the date was wrong.

- Current thinking is split regarding its use. It seems unconnected to the defensive works of the Neolithic city, which included a ditch and a 13-foot wall. The tower could have a religious rather than a military purpose. There are no contemporary sites to compare, but there are Bronze Age and later sites that provide parallels for this sort of use.
 - Many early religions emphasized the worship of the sun or of a sky god. In a number of places, that worship also involved careful and accurate observations of the movement of the sun and stars. To facilitate that and to be physically closer to the deities, the shrines and sanctuaries of these deities would often be built on raised platforms, almost invariably with an open space in front of any temple to commune directly with the sky.
 - Later, even the Romans utilized such raised platforms for their augurs, who read the will of the gods in the flights of birds and who built their largest and most important temples in Rome on the Capitoline Hill, placing them on large podiums, as well.
 - No burials were found under the tower at Jericho, which means that it is not a tomb marker. It is difficult to conceive of what, other than religion, would drive a group of people to dedicate probably some 11,000 days of labor to construct the tower, the first building of its kind in the history of the world. Whatever its purpose, the existence of the tower implies a highly structured society, most likely with a strong central authority to direct such labor.

Houses and Burials in Jericho

- The round houses of the Neolithic level at Jericho, made of sun-dried mud brick, are about 14 feet in diameter, with sunken mud-plaster floors. Each is approximately identical and had its own grain storage area. There seems to be no social distinction or specialization. The round houses were scattered within the community in no discernable pattern. They may also illustrate the power of families as urban units because they are believed to have been clustered by kinship groups.

- In the later Neolithic levels (with radiocarbon dates from 7300 to 6000 B.C.), Jericho grew to a city of about 2,000 people, all defended by a substantial wall. The round houses were replaced with rectangular houses, perhaps indicating a change in population. These houses were constructed of mud brick and organized around rectangular



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Ancestor worship seems the most likely reason for the preservation and artistic treatment of skulls in Jericho.

- courtyards. They had gypsum floors and plastered walls, often painted red. Reed mats are the only certain furnishing. There is evidence that sheep and goats were domesticated by this period if not earlier.
- From around 7000 B.C., there is evidence of what has long been thought of as an ancestor cult at Jericho. Under the floors of the rectangular houses, archaeologists found burials that represent the need to commemorate family members within this community (possibly to claim house ownership through ancestral display) and give us the first portraits in human art.
 - Some of the bodies were intact, but others were headless, and the heads were treated and kept separate, similar to those at Catalhöyük but with some differences. The head was removed, and the flesh, stripped. Then, facial features were built up in modeled plaster on each skull. Pieces of shell were set in the eye sockets, presumably because their white color mimicked the whites of the eyes.
 - In some examples, the skull was decorated with red and black paint to copy personal characteristics, such as hair or mustaches.

Most of the skulls are from adult men, but some are from women and children. All were found buried under the floors of houses. A few scholars view the skulls as trophies taken from enemies, but most see them as evidence of ancestor worship.

- Ancestor worship is common among extended families in farming societies because it connects the family to the land and gives it some authority for ownership. The selection of particular individuals to commemorate in this fashion may have had more to do with the ongoing relationships of the living to specific deceased family members, perhaps an attempt to gain some sort of advantage from the deceased, such as acquiring their particular skill or prowess in some activity.
- Alternatively, some scholars think that the treatment of bones could represent concerns over the potentially malignant activities of ghosts. These creations might have been meant to placate angry spirits. Although we may never know the full meaning of skull treatment in the Near Eastern Neolithic, most likely it was associated with identity, memory, and the particular attributes of the deceased.

The Destruction of Jericho

- Throughout the Bronze Age, from circa 3300 B.C., the walled town on the site was continuously occupied, but around 1580 B.C., the settlement was destroyed. This is the reason for Jericho's fame. Indeed, the story of Joshua and the destruction demonstrates two key points about the site: its long association with walls and its centrality to any attempts to control the region.
- The archaeological remains of this final period in Jericho reveal some intriguing details that seem to support the account in Joshua 6 of the destruction of the city: The houses were burned; they still contained stores of grain, arguing against a long siege or the escape of the inhabitants; and the upper, mud-brick part of the wall, which measured about 12 feet in height, was found collapsed in some areas.

- Thus, when we look at the later ruins of Jericho, it is entirely possible that we are seeing a city destroyed by a siege of only seven days by a group determined to control this valuable location or to remove an impediment to travel through the region. That the conquerors never occupied Jericho may be related to the prohibition against doing so found in Joshua 6:17–18: “And the city shall be accursed, even it, and all that are therein, to the Lord. ... And ye, in any wise keep yourselves from the accursed thing, lest ye make yourselves accursed.”
- Archaeologists will probably always debate how closely the remains of Jericho and the evidence of its destruction do or do not conform to the biblical account. Given that some of the arguments are built on faith, it seems that there is no way to counter them. But nothing in the remains disputes the account in the book of Joshua.
- Two elements of Jericho are notable in the history of cities. The first is the construction of ritual spaces and their importance in defining the community. We saw that on a smaller scale at Çatalhöyük, but we will see closer correspondence between Jericho and the next city in our course, Uruk. Uruk also continues the pattern of a city defined by its great walls and the critical role of communal labor and long-range trade in creating that urban environment.

Suggested Reading

Gates, *Ancient Cities*.

Questions to Consider

1. Is it possible that the plastered skulls of Jericho show cultural continuity with those from Çatalhöyük? Are their uses and forms similar or substantially different?
2. How reasonable is the theory that the Neolithic tower at Jericho represents an early phase of architecture supporting the worship of sky or sun gods?

Uruk—City of Gilgamesh

Lecture 4

In its day, Uruk was a marvel—the largest city in the history of the world, both in size and population, and one of the leading cities of Mesopotamia for 1,000 years. At Uruk, we see, for the first time, the elements that gave rise to urban civilizations, including division of labor, professional priesthods, class hierarchy, and segregated work and living spaces. Uruk also carried on the walled city concept begun at Jericho, here credited to the city's first king, Gilgamesh. In addition, it preserves the first monumental religious complexes found in a city, an element of city construction we've encountered since Çatalhöyük but now on a greater scale.

Overview of Uruk

- Uruk was an ancient city of Sumer in southern Mesopotamia, now modern Iraq. It was founded circa 5000 B.C. on the banks of the Euphrates River, which, along with the Tigris, was one of the two major rivers that defined the area in antiquity. The heart of Iraq was called Mesopotamia, “the land between the rivers.”
- Uruk exploited the connections between other Sumerian cities for trade and, possibly, mutual defense, as well as the natural resources of the Euphrates River and large fertile plains for growing crops. By the city's height in 2900 B.C., it was crossed with numerous canals that were used for transportation and irrigation. With a walled area of 2.2 square miles and a population of around 50,000 in 2900 B.C., Uruk was huge by ancient standards.
- The city imported vast quantities of timber, bitumen, slaves, copper, and stones, such as flint, obsidian, marble, steatite, lapis lazuli, and building stone. Most of this came into the city via the Euphrates, much of it floating downstream from areas in the north. The tremendous range of materials indicates not just a large city but a thriving craft industry with a highly developed division of labor.

- The walls of Uruk were irregular in shape and had 900 buttresses spaced about 39 feet apart; the total wall length was more than 6 miles. At the center of the community, literally and figuratively, were two large sanctuaries: Eanna, the temple complex of the goddess of love and war, Inanna; and the Anu district dedicated to the sky god, An.
 - By 3100 B.C. (contemporary with the city walls), the Eanna district was largely complete, with more than a dozen monumental mud-brick buildings. The purpose of these is debated, but their scale and the resources and manpower they represent are unquestionable. Scholars agree that the temples and associated buildings were more than purely examples of religious devotion.
 - The kings of Uruk associated themselves with the gods; therefore, rituals conducted at the temples certainly also served to reinforce their power. In addition, there is evidence that the temples served as food distribution centers. The people of Uruk may have had to rely on religious authorities for their food rations.
 - Implicit in these complexes is the tremendous central organization necessary to coordinate the manpower for construction. We see not only division of labor but class hierarchy: The priests were apparently responsible for food distribution to at least a portion of the populace, granting them power over the common people.

Artistic Endeavor in Uruk

- Uruk boasted monumental mud-brick buildings, but the division of labor found here also allowed an explosion in artistic creation. For perhaps the first time, we can see nonfunctional works of art that were designed purely for their aesthetic appeal. For example, mosaics of painted clay cones were embedded in the walls of mud-brick buildings.

- For the first time, we find large-scale sculpture in the round and relief carving. The earliest metal casting using the lost-wax process is also found at Uruk. One of the earliest forms of writing, *cuneiform*, comes from Uruk.
 - This writing was a direct byproduct of city life and the needs of civic and religious officials to organize their urban world. Writing developed in Uruk around 3200 B.C. as a means of recording the management of goods and the allocation of workers' rations.
 - Only later did writing move from its use as a means of documentation to the recording of poetry, song, and other forms of literature, including the great Sumerian Epic of Gilgamesh.
- Cuneiform tablets and sculpture in various media celebrated the mytho-historical king of Uruk, Gilgamesh. The epic is the oldest extant work of human literature and tells the story of many of Gilgamesh's adventures and accomplishments. The stories are singular, but the major themes are timeless: the nature of friendship, the relationships between gods and men, the meaning of life, and the fear of death. Ultimately, the epic concludes that immortality is impossible, but reputation after death gives one a form of immortality.
 - The opening passage of the book attributes the



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Cuneiform was based on two of Uruk's natural resources: mud and reeds; small tablets were fashioned of mud, and lines of writing were inscribed on them using a reed stylus.

walls and sanctuaries of Uruk to Gilgamesh. The Sumerians sought to celebrate the greatness of their city by association with this king, who was, as the epic tells us, two-thirds god and one-third man.

- The oldest versions of the written epic are in Sumerian and date from 2100 B.C., although the story is probably 500 years older than that. By the time the epic was written down, control of the resources to create monumental complexes may have passed out of the city's power.
- Consider the reference to the city wall made of "burnt brick" in the opening of the epic. Even if the manpower to make millions of bricks from mud was available, the logistical difficulties of importing timber and building kilns to fire the bricks would be enormous. Thinking about just this one portion of the city gives us a sense of its tremendous power and the centralized organization that must have been necessary to make it function and flourish.
- Inanna was the Sumerian goddess of love and war and goddess of the Eanna temple at Uruk, her most important and perhaps oldest sanctuary. Found at Uruk was the oldest marble sculpture in the history of the world, an image of Inanna. The head probably was set on a wooden statue, its eyes inlaid with lapis lazuli and shell and its eyebrows and hair of bitumen plated with gold. These expensive imported materials again argue for a highly developed division of labor and craft specialization, leading directly to a hierarchy of classes as overseers emerged to coordinate various crafts.
- The development of a form of writing that could convey the profound human ideas in the Epic of Gilgamesh deserves further consideration.
 - For almost 2,000 years, cuneiform was the means that speakers of all Near Eastern languages had to record their thoughts.

- The system of cuneiform began with simple pictographs, but it quickly grew so complex that professional scribes were required. Again, the development of city life led to craft specialization, which then allowed for more sophisticated social constructs beyond the division of labor to the rise of a professional administration/bureaucracy and a class above common workers. Schools were also necessary because training in cuneiform took years.
- In effect, the writing system seems to have both shaped and been shaped by ancient urban life.

The Ziggurat

- Sumer is the home of the ziggurat, the mud-brick pyramidal temple platforms that raised temples—generally to An, the sky god—into the sky. The temple on top was the residence of the god. The ziggurat essentially bridged the distance between earth and sky. It was a restricted space, like the interiors of great Egyptian temples, to be entered only by priests and probably the king. The largest of these at Uruk was built by Ur-Nammu, whose ziggurat supported a temple to Inanna around 2100 B.C.
- In 2900 B.C., there was only one ziggurat at Uruk, in the district of Anu. Measuring 197 feet square and rising to a height of 43 feet, it was designed as a temple platform for the White Temple, one of the buildings whose construction was traditionally attributed to Gilgamesh.
 - The White Temple was a rectangular building, 60 feet by 16 feet, constructed of mud brick with a whitewashed exterior.
 - The interior consisted of a single large room that held a cult statue, an altar, and an offering table.
- In addition to supporting the temple, the top of the ziggurat had exterior space that allowed the priests to watch the heavens. This use of the platform for celestial observation and the subsequent

recording of these observations led to the emergence of Uruk as an early center for astronomy and related sciences.

- The remains of one of the temples in the district of Anu demonstrate the exclusive nature of the enclosed space. It is essentially a series of smaller boxes inside other boxes, all within a large rectangular frame. In Greek or Roman temples, that inner space would be referred to as an *adyton* (Greek: “do not enter”). This restricted space would hold the cult statue and would be entered only by the highest religious officials, who would commune with the deity in person. Scholars believe that the same pattern of worship took place at Uruk.

Residential Areas

- Much less is known about the residential areas of Uruk than the religious, partly because of the early excavators’ focus on the centralized elite contexts of the city and partly because the private construction of less substantial houses leaves fewer traces than tremendous temple platforms.
- The houses seem to have taken a form familiar to the Near East. They were made of mud brick, with a courtyard and flat roofs, one or two stories tall, and filled the city in irregular groups. They seem to have been organized by the profession of the occupants, another component of the division of labor that was so prevalent in Uruk.
- Much of what we know about the residents and residences comes from the finds of the few excavated houses, as well as the translated cuneiform tablets found in some of them.
 - For example, tablets were found in a group of private houses of members of the civic administration. One occupant, Ur-Suen, was a supervisor of plowing oxen and was involved in land management and agricultural production, all of which gives excellent evidence of the centralized agriculture of Uruk.
 - One table records a remarkable poem, “The Uruk Lament,” which gives a poignant account of the conquest of the city

in about 2300 B.C. The narrator “consoled himself with tears and laments as the city trembled. A defiled hand smote him; it flattened his skull and the city collapsed. The capital city, waterway guardian for all nations, became like one who spreads havoc ... Enlil [god of the wind] turned the place to dust, piled the people up in heaps.”

Suggested Reading

Algaze, *Ancient Mesopotamia at the Dawn of Civilization*.

Aruz, ed., *Art of the First Cities*.

Van de Mieroop, *The Ancient Mesopotamian City*.

Questions to Consider

1. How does Uruk illustrate the elements that are considered necessary for a successful city? Do the remains and finds show division of labor, class hierarchy, craft specialization, long-range trade, and professional priesthoods?
2. Consider how the Epic of Gilgamesh reflects the view of the city by its inhabitants. What is their judgment of its defining monuments?

Mysterious Mohenjo-daro

Lecture 5

The Indus Valley civilization is, in some sense, a lost civilization, with mysterious origins and an equally mysterious end, an undeciphered script and unknown language, great cities that are still not fully excavated or understood, and evidence of a complex culture unlike any found elsewhere in the world. The greatest vestiges of the Indus Valley people are the two cities Harappa and Mohenjo-daro. These were occupied for thousands of years, but their major developments occurred in the middle of the 3rd millennium B.C. Harappa is 350 miles north of Mohenjo-daro on the banks of the long, dry river Ravi, while the larger and better-preserved Mohenjo-daro was built on the banks of the Indus River itself in modern-day Pakistan.

Indus Valley Cities

- The lack of comprehensible written evidence in the Indus Valley means that we are almost totally reliant on archaeology to understand the culture. In fact, the rulers of these cities are invisible to us in both the city remains and art. In addition, there is no imagery or evidence of warfare.
- The lack of evidence for social stratification is unique in ancient cities and forces us to ask whether a completely different form of social control existed in the Indus Valley than is found in the Near East or Egypt. Unfortunately, we cannot yet answer that question.
- Along with Harappa, Mohenjo-daro seems to be one of the five main cities of the people of the Indus Valley, known only from their material culture and undeciphered script.
 - These five cities seem equally spread up the river valley and may all be regional centers, none with supremacy over the others, an intriguing clue to the seemingly flat social structure in this region.

- In its greatest phase of development, with a population of 30,000, Mohenjo-daro was contemporary with the Sumerian cities of Uruk and Ur at the height of their power.

Layout of Mohenjo-daro

- Mohenjo-daro was laid out on high ground, making use of the topography for defense or, perhaps, to avoid the flooding that swept the valley regularly. Originally, the plan of the city seems to have been nearly square, divided into 12 roughly rectangular blocks by main streets.
- The central block on the west side of the city was occupied by a raised, fortified citadel measuring approximately 1,200 feet by 1,600 feet. This central block, arguably the public district of the city, has a comparable area at Harappa. It was on a 20-foot-high brick podium, with a large granary, presumed ritual bath, and other buildings believed to have public functions but no recognizable palace, temple, or public monuments. Given this set of public buildings, it is difficult to draw conclusions about the civic organization or social structure of the city and, therefore, the wider civilization.
- The majority of the city was taken up with houses, mostly two stories tall and surrounding internal courtyards, a form recognizable from many cities in the Near East and Mediterranean Basin.
 - It is tempting to draw parallels from these other cultures and to analyze the house here as an economic unit, but there is no evidence to support such a contention. How the houses were used and even if they represent the center for only a single family or a kinship group is completely unknown.
 - Social distinction, if not structure, is indicated by the houses. Most are composed of a handful of rooms surrounding a courtyard, but some are large structures of several courts surrounded by clusters of several dozen rooms.
 - All of the construction—fortification walls, public buildings, infrastructure, and private houses—relied on brick. Mohenjo-

daro must have presented a remarkably homogeneous image, as though the entire city were carved out of clay. No evidence of wall paintings survives, and it is thought that none of the walls of houses or public buildings were painted.

- The mud bricks used to construct Mohenjo-daro were fired, not sun dried—important in an area with monsoons and floods and remarkable in this period. Firing millions of bricks takes tremendous organizational capabilities, arguing for central organization and a complex society with a well-developed social structure and division of labor. The task also requires huge amounts of labor and raw materials, particularly wood to burn in kilns to fire the brick. This fact seems to argue for a centrally controlled society but, as noted, one without a recognizable social structure or rulers.



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Most scholars agree that the Great Bath at Mohenjo-daro was designed and used for ritual purifications.

The Citadel

- Archaeologists agree that the so-called citadel was the city center. On the citadel platform was the Great Bath, a basin measuring 39 feet by 23 feet and 8 feet deep. The bath was the main feature of the earliest known public water system in the ancient world.
 - Entered by two wide staircases, it was constructed of brick with gypsum plaster to make it watertight. It had a surrounding portico—a roofed porch supported by columns—on all four sides. Behind the portico on the east was a set of 27 individual rooms, often compared to monastic cells, but whose purpose is unclear.
 - Another set of larger rooms was found behind the portico on the north side. These have also been compared to monastic cells, but they may have served as retreats for prayer or meditation. Their use may also have been therapeutic and nonreligious.
 - Behind these rooms was another complex sometimes called the College. One excavator postulated that its rooms were for a college of priests, but there is no evidence to support that interpretation, and the use of this complex remains a mystery.
 - Almost all scholars agree that the Great Bath was designed and used for ritual purifications of the type well known from many ancient religions, rather than for hygiene or recreation, as seen at Rome.
- To the south of the Great Bath is a large pillared Assembly Hall, measuring 92 feet square. Its name was given by the excavators, suggesting a civic function.
 - The interior was divided by three rows of five brick bases for the 15 wooden columns that originally supported the roof. The floor was laid with fired brick.
 - The excavators drew parallels to other large columned halls from antiquity, such as the Egyptian hypostyle halls and the Persian square audience hall in the Apadana palace at

Persepolis, or to a Roman basilica, the civic hall that houses the law courts. But the purpose of the Assembly Hall at Mohenjo-daro is a mystery.

- The final building on the citadel was called the Granary by the excavator. This was a particularly sophisticated building arranged in three rows of 10 separate grain storage rooms with air passages to keep the grain dry. The Granary originally measured 150 feet by 75 feet and was a wooden building above the level of the foundations. In recent decades, questions have been raised about its identification as a granary.
- The remaining fortifications of the citadel include a segment of rampart wall, 45 feet wide at the base, with an angled, fired-brick exterior and an elaborate gateway.
- There are elaborate drainage and water systems throughout the city, not just in public areas. Wells, bathing rooms, and drains can be seen in virtually every one of the houses. Also common are the main drains in the streets, with stone manhole covers for inspecting, maintaining, and cleaning the underground passages.
 - The entire city seems to have been designed with water systems in mind, and it's difficult not to view this as a religious element.
 - Certainly, recognizable bathrooms and latrines are found throughout the buildings, but the focus on bathing seems consistent with later cultures that emphasize ritual purification.

Art and Writing

- One of the most intriguing finds from Mohenjo-daro is a seven-inch steatite/soapstone statuette known as the Priest King. This figure shows a seated bearded man wearing a circlet or diadem on his head and a cloak over his left shoulder. He is the only image of what we think was the combined civic and religious authority of the Indus people.

- Evidence that the so-called Priest King is not the deity of these people comes from one of the 2,000 carved steatite seals found in the city. On the rectangular field of this seal are two rows of figures. The bottom row is a line of seven figures in procession. The top row shows a female figure who is identified as a goddess; she is shown beside a fig tree with a worshipper kneeling before her. The large ram that fills out the upper register indicates a sacrifice. The seal also has signs from the undeciphered Indus script.
- Writing, as seen at Uruk and as we will see later in Egypt and at Mycenae and Tiryns, is an urban phenomenon. It developed in cities for the detailed recordkeeping necessary to ensure that people could live together in large groups. Originally, food supplies and religious rituals were recorded, followed by civic and legal matters, and finally, literature.

Economy and Inhabitants in the Indus Valley

- Large areas in Mohenjo-daro, which seem to be common areas, are given over to the storage and processing of commodities. This suggests a centralized economy, probably controlled by an authority who held both civic and religious power.
 - One of the most interesting of these common areas, designed for industrial-scale fabric dyeing, is found in a number of Harappan cities. Remains of cotton fabric have been found, perhaps the earliest evidence of the cultivation of this important plant.
 - Based on the remains of their work, other areas seem to have been workshops for potters, bead makers, metalworkers, and workers in steatite, shell, and faience, the fired-quartz material used to cover ceramics to give them the look of glass or metal.
- The inhabitants of the Indus Valley cities lived in communities that were very different from what we are used to today, with what we conclude were structures of collective labor and combined religious and civil authority. Their cities reveal none of the architectural forms associated with kingship or religious observance in civilizations

further west, leading to considerations that they had a unique social and political structure.

- Yet the inhabitants lived in houses that would become the pattern in southwest Asia for the next 2,000 years: two-story mud-brick houses with balconies, courtyards, and flat roofs for additional living or storage space. The people of the Indus Valley also lived in communities with better food security, water sources, and hygiene than any other for the next 2,000 years. Why, then, did Mohenjo-daro, a city of 30,000 people, cease to exist?
- The answer isn't invasion, disease, or similar catastrophe. Like Harappa, Mohenjo-daro relied on its proximity to the river for its survival. But when the Indus shifted its course, the city was eventually abandoned, leaving it much as we see it today and preserving the lives of people who lived there more than 4,500 years ago.

Suggested Reading

Aruz, ed., *Art of the First Cities*.

McIntosh, *The Ancient Indus Valley*.

Posschl, ed., *Ancient Cities of the Indus*.

———, ed., *Harappan Civilization*.

Questions to Consider

1. Mohenjo-daro is a unique example of urban life. What categories of buildings (civic, political, religious, recreational, and so on) are not found at the site? What conclusions can you draw about the society from the absence of these buildings?
2. The major infrastructure projects of the city are concerned with water. How does reliable access to fresh water make urban life as we (and, perhaps, they) know it possible?

Kahun—Company Town in the Desert

Lecture 6

Ancient Egyptian culture developed in regional clusters along the banks of the Nile in the late Neolithic and early Bronze ages. By 3200 B.C., the kingdom was unified, and the figure of the pharaoh emerged. The Egyptian city of Hetep-Senwosret is known by its modern name, Kahun. It was founded in 1890 B.C. under Sesostriis (Senwosret) II, a pharaoh of the 12th dynasty of Middle Kingdom Egypt. During his reign, Egypt was at peace, and he concentrated his efforts on trade with the Near East, continued possession of occupied Nubian territories, and increased agriculture in the Fayum. Kahun was built to house the workforce creating his tomb complex among the burial areas in the desert west of the Nile.

Egyptian Control at Kahun

- The city of Kahun was constructed almost completely of mud brick. The community of 9,000 to 10,000 people who lived here represents the extraordinary control of society that Egyptian central government imposed on even regular communities deep in the kingdom.
- To start with, the city is walled. This isn't surprising, except that Kahun is essentially an internal colony of workers. It's in safe Egyptian territory, not on the frontiers. The walls serve to define the city but also to control it. In fact, the section of the city given over exclusively to the houses of the common workers is walled separately.
- City design under Sesostriis II shows the earliest use of orthogonal planning and modular design in city construction. Orthogonal planning, the use of streets set at right angles and the subsequent creation of square or rectangular city blocks, seems natural to us. But this design was the direct byproduct of the Egyptian need to create a structured environment.

- The houses at Kahun are of two types: regular six-room houses of the workers and larger houses of the supervisor/overseer class. Each type is created around a module, which could be replicated as needed to fill out blocks and form the majority of the city.
- One of the notable features of the city is the division of space within it. The allotment of space and the position of key urban components reveal Egyptian priorities and need for social control; the blocks of workers' houses are separate from the houses of the elite, the acropolis, and the food storage areas.
- The city was laid out in the desert in a rectangle, with the high ground used for what archaeologists have anachronistically called an acropolis. This block, located on the north edge of the city, divided the common and high-status areas and included a temple to a god.
- The western third of the city was all common houses of workers, each about 144 square feet. The eastern two-thirds was taken up with additional workers' houses, large-scale food storage areas, a warehouse district, and 10 much larger elite dwellings.

Daily Life in Kahun

- When it was discovered, the mud-brick city of Kahun had largely collapsed in the desert, but with its raw materials in place, along with some domestic goods and papyri, aspects of the daily life of the city's inhabitants can be reconstructed.
- Not all the construction was mud brick. Some houses had stone foundations and stone bases for columns made of palm tree trunks. The common houses consisted of a simple arrangement of six rooms in a limited variety of organizations. These houses were single story, with flat roofs that were probably used by the inhabitants for additional space.
- One of the notable differentiations in the city, along with the size differential between the common and elite houses, was the width of

roads. The main road that ran past the acropolis, elite houses, and food storage areas was about 29 feet wide, while the roads that separated the blocks of workers' houses were only about 5 feet wide.

- The workers lived in smaller spaces, more tightly packed together, in relative deprivation, and probably without green spaces or public areas. It's thought that this was not an oversight but was planned by authorities to forestall gatherings of workers.
- An even greater form of control can be found in the fact that the common houses had no food storage areas or provisions for water, forcing the inhabitants to rely on the large houses as redistributive subcenters for provisions and reinforcing control over the common workers by their overseers. It's possible that someone from each household of workers had to go daily to one of the large elite dwellings for food and water rations. This practice would be an effective means of ensuring discipline in the community.

Civil and Military Structures in Egypt

- In many ways, the architecture, design, and layout of Kahun are remarkably similar to contemporary Middle Kingdom fortresses that were used to control occupied areas in Nubia. Also built of mud brick and organized around barracks for soldiers, command buildings, and food storage areas, the military structure seems paralleled by the civil structure at Kahun.
- The fort at Buhen, almost exactly on the border between Egypt and Sudan, gives us one of the best-preserved examples. It is an extraordinary mud-brick complex surviving from almost 2000 B.C. It also was laid out using orthogonal planning and modular design for the various components of the city, such as domestic spaces, storehouses, and administrative buildings.
- Kahun lacked the impressive defenses of the southern frontier fortresses, such as corner towers, moats, and multiple lines of walls, but it is similar in design and reveals a similar approach to

Egyptian society by the central government: establishing practical settlements for populations to fulfill particular functions in support of the state and rulers.

Elite Homes

- The homes of the elites at Kahun were designed to reward them, to reinforce their status, and to be used as redistribution centers for provisioning the workers. We know a great deal about the houses of the elites from a variety of interesting sources.
- First, the remains of the houses themselves give us information on layout, organization of rooms, architecture, and so on. Like much of Egyptian architecture, both religious and domestic, the elite homes are rectangular in form with a central core of rooms. At Kahun, this core of rooms included open spaces, such as courtyards, often with a covered walkway along one side supported by a line of columns.
 - The lower-status spaces in these homes included food storage and preparation rooms, as well as servants' quarters and rooms to support the household.
 - In the best-preserved of these houses, there is a long double hallway that runs most of the length of the house, from an entrance at the short end to what seems to be a reception space adjacent to the largest of the food storage areas.
 - The 10 elite houses in the east part of the city may have been for the overseers of specific subdivisions of workers, who would report to the overseer's house for rations, thus reinforcing the control of the overseers and, by extension, the system of which they were all a part.
- Another source of evidence for the form of the elite houses is provided by the tomb architecture of these officials. Designed literally as houses for eternity, tombs were often built with the same features as houses. Because they were for eternity, however, instead of mud brick, they were cut out of stone. This hardening of the architecture preserves the forms of houses. For example, some tombs have

entrances that reflect the elite houses, with a central door between two columns, showing the importance of the central axis.

- How the space inside these houses was used is not revealed by the house remains or even the tombs alone. For the use of particular rooms and organization of work, we can turn to the wooden models that have been found in dozens of Middle Kingdom tombs. These wooden models are almost perfectly preserved in the desiccated desert air. They were used to ensure that the deceased had the food, shelter, and servants of this world in the next—that their current earthly status was eternal.



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A funerary model explains sealed rooms found inside elite houses in Egypt; workers emptied sacks of grain into the rooms under the watchful eyes of an overseer and scribes.

- One of these models solves a problem involving a standard set of rooms with no doors found in the elite houses. The model shows a line of workers carrying sacks of grain up a ladder to they stand on the wall separating two sets of enclosed rooms; they then empty the sacks into the rooms. These granaries were enclosed to keep out vermin and to protect the grain.
- Another common form of model shows two narrow rooms full of workers, all busy at a variety of tasks. The brewery/bakery models give us details of the processing of stored grain into the dietary staples of beer and bread. These operations are overseen by a soldier in the corner armed with a spear and shield.

Apparently, the tradition of loss prevention in businesses goes back at least to the Middle Kingdom in Egypt.

- One of the most important of these models for re-creating the city shows the courtyard of an elite house with a colonnade along one side, a row of trees around the edge of the courtyard, and a pond in the center. Given the climate of Egypt, it looks like an ideal retreat from the heat and dust of the desert.

The House of Hori

- Thanks to finds of papyri from Kahun, we can trace the occupants of one small worker's house over three stages of change in a fairly short period of time.
 - The house was occupied by a soldier, Hori; his wife, Shepset; and their son, Sneferu. They were then joined by Hori's mother and father and five younger sisters. In the final known phase of the family's occupation, Shepset lived in the house with her son, her mother-in-law, and three of her sisters-in-law. In this phase, Sneferu was a soldier, like his father, who was presumably deceased.
 - The occupation of this domestic space by multiple generations of an extended family suggests that it was considered a family home, not just an assigned sleeping space.
- Additional evidence of occupation if not ownership by a family is provided by the infant burials found under the floors of many of the worker's houses. This practice was common in the ancient world and is thought to represent a desire to keep these infants within the family defined by the house. In that way, it differs somewhat from the adult skulls found under the houses at Çatalhöyük and Jericho, which are thought to have represented ancestor worship, rather than to reflect evidence of social obligation.
- Given that the city was not just for workers but also their families, it probably changed over time. Kahun eventually became a ghost

town as the workers completed their task of creating the tomb complex for Sesostriis II.

Suggested Reading

Kemp, *Ancient Egypt*.

Questions to Consider

1. How were the common workers in Kahun “put in their place” socially and economically in the city?
2. What aspects of Kahun, either in design or conception, do you see in later cities, even ones almost 4,000 years later?

Work and Life at Deir el-Medina

Lecture 7

We now move about 375 miles south to the environs of Thebes, site of the temples of Amun-Ra and the tombs in the Valley of the Kings. We also shift about 400 years later, into the Egyptian New Kingdom. This is the period most people are familiar with from the rule of such pharaohs as Tutankhamen and Ramesses. It was the height of Egyptian power and the period of its largest empire, spreading into the Near East and south into Nubia. Like the city of Kahun, Set Maat (“the place of truth”) was preserved in the dry climate of the desert, having been abandoned after it fulfilled its purpose. It is known today by its Arabic name, Deir el-Medina.

Overview of Deir el-Medina

- Deir el-Medina was founded about 1500 B.C. across the Nile from Thebes, the location of modern-day Luxor. The city was about 1 square acre and originally contained 70 houses; this number eventually expanded to 120. Its inhabitants made their livings excavating, constructing, and decorating the tomb complexes along the west bank of the river.
 - Deir el-Medina was quite literally surrounded by tombs. To the west were the tombs cut into the cliffs that separated the fertile areas along the Nile from the high, broken desert beyond. To the east were the great mortuary temple complexes of the New Kingdom pharaohs, all of whom were buried in the vicinity.
 - Close to the town were temples to Amun-Ra, the chief god of the Egyptian pantheon, and later, a temple to Hathor.
 - The placement of the village created a set of both temporary and permanent habitations. The city itself was abandoned after about 400 years, but the tombs of its former inhabitants remained in use.

- Like Kahun, Deir el-Medina was a settlement of skilled workers, with no public or green spaces. It was referred to by the workmen who lived there as *pa demi*, “the town.” The community included highly skilled craftsmen, such as masons, painters, sculptors, coppersmiths, carpenters, and others, as well as their wives, children, and other dependents. It also had scribes, a police force, civil officers, a judge, a physician, and a scorpion charmer.
- A narrow street ran the length of the village, from the entrance in the north to the south. The main road may have been covered to provide shade. The houses each opened directly onto this road.

Daily Life in the Village

- The skilled trained workmen of Deir el-Medina were better paid than most of the workers in Egypt. They further enhanced their income by using their free time to take personal commissions for furniture and grave goods.
- The workmen were called “servants of the place of truth”; they were known collectively as gangmen and divided into two gangs. Each gang worked under a foreman, who assigned and supervised the work. A scribe was assigned to each gang to record work, pay, and costs and to write reports.
- The foremen and scribes were the village leaders and communicated needs and problems up the bureaucracy to the overseer of the treasury or the civil or military authorities. They were responsible for assigning and paying the workers, arranging for proper raw materials, sitting on the local court (along with the police chief), and witnessing oaths.
- The scribes also supervised community servants, who supported the skilled craftsmen by carrying wood and water, fishing and gardening, and performing other tasks. These servants could be promoted to workmen, attesting to social mobility in the community.

- Thanks to papyri and ostraca (large pieces of broken pottery or limestone, used as scrap paper in the ancient world), we know details of the lives of the inhabitants of Deir el-Medina, including their marriages, divorces, inheritances, civil and criminal cases, and the literature they read.
- For the first time, we also know a great deal about women in the community, who filled many roles. On one occasion, a foreman's wife paid the workmen's wages. Other women participated in the rituals of the temple outside the village as singers or priestesses.
- Social mobility was possible within the gangs, and the foremen of the two gangs could become quite wealthy and powerful.
 - The tomb of the foreman Kha, who died about 1390 B.C., is an excellent example. The sarcophagus and coffin of Kha's wife Meryt have been found. She was buried with many pieces of gold jewelry, along with objects of faience, wood, alabaster, bronze, and pottery. The tomb was full of furniture, including wooden beds, stools, and boxes and a game board.
 - Scribes could become wealthy, as well. The scribe Ramose served for 33 years and owned slaves and farms, leaving three tombs, including one for his female dependents.
- The written material also allows us to trace individual families. For example, a foreman named Kaha was a carpenter's son and apparently son-in-law of the foreman who preceded him. Kaha and his family members held the post of foreman almost without interruption for not quite 300 years.

Conflict and Courts

- Urban life brings people into proximity, and naturally, conflicts arise. For example, we know the details of a labor action under Ramesses III, when the gangs had their pay withheld by the overseers, who were essentially embezzling it. Finally, both gangs went on strike and marched to the nearby royal temple. There, the

workers appealed to higher-level administrators and conducted the first sit-in recorded in world history.

- The village court, known as the *kenbet*, had jurisdiction over civil and minor criminal cases. Legal documents, such as wills and deeds, were also filed with the court. Major cases were referred to higher courts across the river at Thebes.
- Civil cases concerning failure to pay for goods or services seem to have been the most common. Accuser and defendant argued their own cases. One resident, Menna, either seems to have had a run of problem agreements or was simply litigious. In one case, he sued for payment owed on a pot of fat sold on credit. Menna had to make the accusation three times before the scribe and, 18 years later, a fourth time. At that point, the accused swore to pay within a month or to accept 100 blows with a stick and pay a double fine.
- The court of appeals was the deified Amenhotep I. Through a priest, appellants could request an oracular verdict on appeals.
- The court also dealt with theft. A workman called Nebnufer son of Nakhy filed a suit accusing the lady Heria of stealing one of his tools, which because of its value, he had buried under his house. When questioned about the theft of the tool in court, Heria denied stealing it and swore an oath of her innocence to the god Amun. But when her house was searched, the tool was discovered, along with ritual objects stolen from a temple. Heria was condemned to death for blasphemy, perjury, and theft.

Houses in Deir el-Medina

- The village of Deir el-Medina consisted almost entirely of housing for the workmen and their families. The houses were, on average, 750 square feet, and were built on stone foundations with walls of mud brick. The walls were plastered with mud, then completely whitewashed on the exteriors and interiors up to a height of about 3 feet.



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The workers' houses at Deir el-Medina were designed similar to American shotgun houses, with a series of rooms proceeding back from the entrance.

- Each house had a narrow frontage along the street, with the entrance and a series of rooms that proceeded back from that, one room opening onto the next.
- Usually, each house had four or five rooms, including an entrance room, a main room, a kitchen, and two smaller rooms. These latter may have had multiple functions, perhaps serving as storerooms, work areas, or separate quarters for the women in the household, although that is highly debated. Each house had one or two stone or brick cellars and a staircase leading to a flat roof.
- The main room contained a mud-brick platform that was plastered and whitewashed; this structure is almost perfectly paralleled by one found in the houses at Çatalhöyük. It may have served as a bed platform and seating area. Nearly all the main rooms in the houses contained shrines, consisting of small altars and wall niches for statues. This suggests that the platform may have been used for some religious purpose instead of, or in addition to, its domestic one.

- Child burials have been found under the platforms in some of the main rooms. As at Çatalhöyük, Jericho, and Kahun, these domestic burials are thought to be evidence of home ownership by the families who lived here.

Medical Care

- The written records from Deir el-Medina provide details of medical care in the community. Those who were sick or injured had two choices for professional care: a part-time physician or a scorpion charmer.
- Rather than thinking of these choices as medicine versus magic, it might be more accurate to consider this division of labor as a general practitioner and a specialist. Each prescribed a variety of potions for illness and injury, while the specialist also included some spells and amulets.
- The scorpion charmer was primarily employed to aid against the stings and bites of scorpions, which are ubiquitous in the deserts of the Near East.

Literature

- Many of the most well-preserved stories and poems that survive from ancient Egypt come from Deir el-Medina. These include comic works, such as the Satire of the Trades, a scribe's negative description of other trades compared to scribes; popular stories or folktales, such as the Tale of Sinuhe, the story of a refugee in the Middle East during the Middle Kingdom; allegorical tales, such as The Blinding of Truth by Falsehood; and mythological stories, such as the adventures of Set and the struggles between Horus and Set.
- A work known from official accounts is the victory hymn of Ramesses II, celebrating his defeat of the Hittite Empire at the Battle of Kadesh.

- A genre of literature that would be familiar to us has also been found: books of advice, including treatises focused on getting along with others and books on the interpretation of dreams.

Economy

- The workmen were paid mainly in food but also other commodities. The rations consisted chiefly of wheat and barley, as well as vegetables, fish, water, and firewood. These were supplemented by less regular supplies of beer and dates, with extra rations on religious holidays that might include meat, salt, and oil.
- Based on these commodities, workers developed their own internal economy of a form we recognize as private enterprise and consumerism. They bartered with one another for various goods and services, with scribes charging to record these private transactions.
- One example from the ostraca shows the payment for a wooden coffin that had been commissioned. Some of the cost was met with copper (the basis of trade), but the rest consisted of two goats, a pig, and two logs of wood.

Suggested Reading

Kemp, *Ancient Egypt*.

Questions to Consider

1. What elements in the social structure of Deir el-Medina are familiar to us today, such as social mobility, family-based housing, craft specialization, and community leadership?
2. Knowing what we do about the houses and people of Deir el-Medina, in what areas do we see continuity from previous cities, such as Kahun or Çatalhöyük? In what areas do we see changes, as in the appearance of private enterprise, consumerism, and a market economy?

Amarna—Revolutionary Capital

Lecture 8

The new capital of Egypt, Akhetaten (Tell el-Amarna), illustrates two tendencies in city foundation familiar to us from their application in the United States. First, it marks the deliberate creation of a capital as close as possible to the center of the kingdom, as we see in state capitals. In this case, Amarna was situated on the Nile, about midway between Thebes and Memphis. Second, it demonstrates a planned layout and buildings based on the ideology of rule, as seen in Washington DC. Amarna was an administrative and religious foundation conceived as an attempt to break the hold of the priests of Amun-Ra on the life of Egypt and to redirect religious and political authority to the pharaoh himself.

The Pharaoh Akhenaten

- The pharaoh who founded Akhetaten was Amenhotep IV, but he is better known as Akhenaten, the name he took when he began to rule in his own right. He radically abandoned the worship of Amun-Ra, which had been exploited for hundreds of years by pharaohs before him.
 - These earlier pharaohs had declared themselves the sons of Amun-Ra and had built onto that god's temple complex at Thebes until it became the largest religious sanctuary in the history of the world. Indeed, it was more than a religious complex; it was an economic complex.
 - As we saw in the last lecture, when the workers at Deir el-Medina went on strike, they headed to the nearest temple of Amun to press their complaint. The estate of Amun (the land controlled by the temple complex at Thebes) was a major center for growing, storing, and distributing food, particularly grain. Food, of course, was a means of exchange in ancient Egypt. This gave the priests of Amun-Ra immense power and control at the main temple at Karnak and at its associated temples across the kingdom.

- Akhenaten closed that temple and redirected worship to the Aten, the sun disk. Rather than requiring the intercession of hundreds of priests, the sun disk's blessings flowed to the royal family and, from them, to their subjects across the kingdom, making Akhenaten and his family the only intermediaries needed for the entire kingdom to thrive.
- Because of this radical shift to the pharaoh as the intermediary between humans and the primary god of the sun disk, many images of the royal couple were created and have been found in both public buildings and domestic spaces. The masterpiece of this revolution in religion and society was the new capital at Akhetaten, commonly referred to as Amarna.

Location and Layout of Amarna

- At the selected location along the banks of the Nile, a plot of land 8 miles by 10 miles was surveyed and marked with limestone stele, each carved with the image of Akhenaten and Nefertiti worshipping the Aten. The city they constructed was unlike any ever seen before.
- As we saw at Kahun, cities were usually founded according to a set plan or, as with Pompeii or Barcelona, began organically with order imposed as they grew; this order usually took the form of an orthogonal plan for new areas of the city to expand into.
 - At Amarna, the city was laid out along a main road in a pattern designed to emphasize its use as a setting for royal procession. Only the center of the city was orthogonally planned.
 - That core included only the central palace and the sanctuary of the Aten, the largest complex in the city. It was laid out directly across the main road from the palace with a bridge connecting the two.
 - This core of the city was a stage for pharaonic power and for rituals that reinforced the pharaoh's connection to the Aten and the benefits that flowed through him to the people of Egypt.

- Other than the palace and the sanctuary, other buildings were placed organically. These structures include government buildings, such as the barracks of the police and soldiers; religious buildings, such as subsidiary shrines to the Aten; and houses. These organic placements are not the result of later building of suburbs onto a sprawling city; they were all laid out and built in a matter of a few years.
 - Akhenaten's revolution involved a radical change in society. The pattern seems clearly designed to break the power of the hereditary priesthoods of Amun-Ra and the aristocracy in favor of new groups of individuals chosen, perhaps, for loyalty but more likely for ability.
 - The city represents an attempt to restructure society below the pharaoh around merit without regard to birth.
- The temples of the Aten were designed superficially like the great temples of Amun-Ra, with processional routes and increasingly restricted spaces that allowed only the most elite to move into the temple to the final room, where personal contact with the god took place. Here, however, as befitting the temple of the sun disk, the entire complex was unroofed.
- Between the two temples of Aten that define the north and south edges of the sanctuary and adjacent to the royal road, the majority of the frontage was taken up with enormous areas for slaughtering cattle and for grinding grain and baking bread. The temple of Aten served to supply rations to the inhabitants of the central part of the city.

Royal Display

- In addition to celebrating the god, Amarna was designed as an arena of royal display. The single major road is a processional avenue, allowing the pharaoh and his family to be seen moving across the city, particularly from temple to palace and from north to south, stopping at key locations for open-air audiences.
- The royal chariot was accompanied by armed escorts, whose presence reinforced the status of the pharaoh. A famous bas-relief in the

tomb of Mahu, the chief of police, shows Akhenaten with Nefertiti traveling by chariot, with Mahu running ahead with the bodyguard.

- Postures of special deference were adopted by those allowed to approach the pharaoh. Depending on status and relationship to the pharaoh, some in the audience stand with hands raised in a gesture of adoration, while lower-status people bow or, in extreme cases, kneel and kiss the ground.
- The pharaoh made regular “appearances,” alone or with his family, at a palace balcony or the Window of Appearances. The window is in the center of the bridge that joins the palace and temple complex so that the road beneath operates as an open audience hall.
- Open-air review of the troops and representatives of the empire also took place to reinforce the direct connection between the pharaoh and this critical component of society. One relief in a tomb shows a soldier being decorated for service, with the royal family overseeing the ceremony from the Window of Appearances.

Non-Royal Housing

- In sharp contrast to the royal and religious areas, the non-royal housing in the city displays a lack of modular construction and a rejection of unit building. The vast majority of the 45,000 inhabitants lived in small neighborhoods that combined upper-status and common housing. These seem to have been intermixed, with no formal divisions or distinctions and, most notably, no surrounding walls.
 - Amarna seems to represent a radical reconfiguring of both the traditional class system and urban design.
 - With no walls, there was nothing to restrict access to food, define status, or create social controls by keeping the workers in their place.



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Many images of Akhenaten, either alone or with his family, have been found in both public buildings and domestic spaces in Amarna, including common houses and tombs.

- The initial workers' village seems to have been the first settlement of those sent to build the city and to begin to dig and decorate the rock-cut tombs.
 - This village consists of a rectangle enclosed by a wall, within which were six rows of common houses. Each row was 12 houses long with a large house for an overseer in one corner of the village.
 - The village reflects traditional Egyptian society—rigidly class-based and tightly controlled—and demonstrates that the new urban forms in the community at Amarna were deliberate.
- The houses in the non-royal areas of Amarna demonstrate the extent of social revolution that Akhenaten visualized.

- They are not in regular orthogonal arrangements nor are they modular in design or isolated by class or status. Instead, loose arrangements of houses for a variety of social levels were placed in heterogeneous groups.
- This arrangement violates the principles of previous Egyptian city design and reveals the breakdown of social and cultural constraints on class. The loose configurations may represent craft specializations, rather than kinship groups or a narrow subset of class, as at Deir el-Medina.
- The most obvious example of the radical nature of the city is found in the houses of the new middle class.
 - Unlike the residents of Kahun or Deir el-Medina, these citizens had their own food storage facilities; either they received surplus rations or the authorities stored the annual harvest in the houses of the non-royal and, arguably, non-elite members of the community.
 - Even more remarkably, these houses were full economic zones, essentially almost independent complexes, with their own wells, granaries, stables, courtyards, gardens, shrines, and workshops.
- The contrast to Deir el-Medina under Akhenaten's father is dramatic. At that city, the workers lived in gangs and were tightly controlled. In Amarna, not only were the non-elite compounds rather autonomous, but vital work took place within them, where oversight by higher authorities would have been practically impossible.
 - Akhenaten created a city that demoted the hereditary aristocracy and elevated middle-class craftsmen to exalted positions of power and autonomy. In essence, he seems to have created a society based on merit.
 - Gone are the tight central controls over food, water, and movement as a means of regulating workers that characterized previous periods. Instead, status seems to come from direct contact or association with the pharaoh himself.

- Akhenaten appears repeatedly in the houses of his subjects on the reliefs in their shrines, giving us some of the most creative and iconic images from ancient Egypt. These works include the famous bust of Nefertiti found in the workshop of the sculptor Thutmose, which was within his large house-compound. Indeed, the major subjects of art were the royal family and their role in interacting with the Aten to bring its blessings to Egypt.
- Amarna did not last beyond a generation. With the death of Akhenaten, his religious and social reforms seem to have collapsed. The temple of Amun-Ra at Thebes was reopened, and the pharaoh's successor and probable son, Tutankhaten ("Living Image of the Aten") changed his name to Tutankhamun ("Living Image of Amun"). Some of the radical social changes that occurred at Amarna are found later, although whether directly inspired by the city or not is impossible to say.

Suggested Reading

Amarna Project, <http://www.amarnaproject.com/>.

Kemp, *Ancient Egypt*.

———, *The City of Akhenaten and Nefertiti*.

Questions to Consider

1. How does the organization of space and selection of public monuments reflect the needs of the religious and political authorities?
2. What changes in Egyptian social structure are revealed by the arrangements and forms of domestic architecture at Amarna compared to earlier Egyptian cities?

Knossos—Palace, City, or Temple?

Lecture 9

The site of Knossos is the largest, most completely excavated, and most famous of the Minoan “palace” sites that survive from this intriguing non-Greek Bronze Age (ca. 2000–1200 B.C.) civilization. But before we jump into this remarkable complex, which created a pattern for how people lived together in an urban structure, we need to address who these people were and why they were important for later historical developments. Then, we will explore Knossos itself, believed to be a microcosm of the Minoan world.

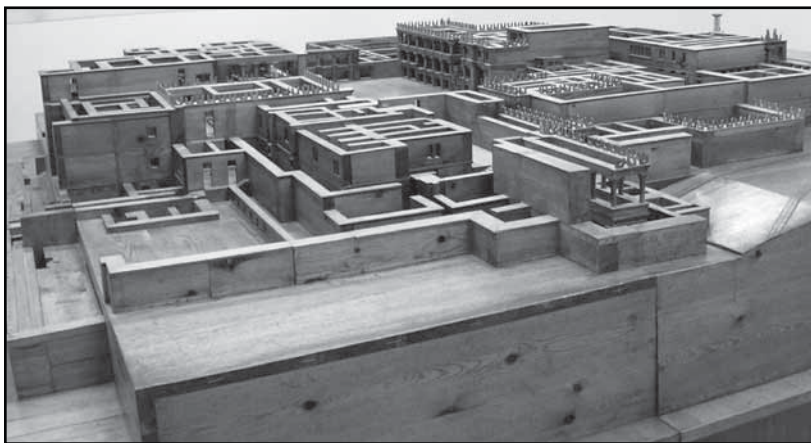
Minoan Civilization

- The Minoan civilization developed in the Aegean Sea, particularly on the island of Crete, in the Bronze Age, from about 2600 B.C. until about 1400 B.C., when the people there were conquered by Mycenaean Greeks from the mainland. The Minoans were not Greek and probably represented a civilization that developed independently on Crete from the Neolithic. They had a unique form of architecture, city structure, language and writing system, and as far as can be determined, religion. Nevertheless, they represent a key intermediary between the Near East and Greece.
- We begin looking at Crete on our way to the Greek cities because the Greeks themselves started here. Crete is essentially the crossroads of the eastern Mediterranean, and frequently, influences from Egypt and the Near East appear here decades before they do in mainland Greece. Transmission of those influences was direct. The Minoan people of ancient Crete had a trading post or colony in Egypt from about 1750 to 1550 B.C.
- The Greeks themselves were aware of this leading role of the island in foreign contact and advanced technology and personified the role of Crete—especially the site of Knossos—in the person of Daedalus, the father of all Greek arts.

- In mythology, Daedalus was the architect/craftsman of King Minos of Knossos. He was responsible for creating the great labyrinth, the maze-like home for the half-man, half-bull Minotaur. The story of that labyrinth is thought to have been inspired by the apparent labyrinthine form of the complex at Knossos.
- In myth, after he created the labyrinth, Daedalus flew away on wings of his own making. He landed at the Greek colony at Cumae, where he founded the worship of Apollo, the Greek god of music and poetry. Thus, for the ancient Greeks, architecture, arts, and religion all flowed from Crete, specifically, from Knossos.

The Complex at Knossos

- The excavator of Knossos, Sir Arthur Evans, dubbed this great complex a palace, but that designation is incorrect. Rather than just a home and reception space for a ruler, this urban complex included housing for large numbers of people, food storage space, religious spaces, workshop and craft zones, and administrative areas.



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The last building phase at Knossos resulted in the largest of the Minoan palace complexes; its architectural and organizational elements were influential across the Minoan world.

- The complex is completely unlike the palaces of ancient Egypt or the Near East—large formal structures designed around the needs of rulers and emphasizing axiality and symmetry.
- Here, despite its labyrinthine appearance, the complex is integrated into the natural landscape; sophisticated in conception, plan, and layout; and constructed with great care and precision but without any indication that it served as the home or headquarters of a ruler.
- The complex was created in three large building phases around 2000, 1700, and 1550 B.C. The last of these phases resulted in the largest of the Minoan complexes. In area, it measures 242,000 square feet.
- Knossos exemplifies features found in all of the extant palaces from these phases, including construction on a hilltop; an indented and projecting façade; multistory construction; use of multiple windows, although rarely on the ground floor; organization around courtyards, with a central courtyard and a consistent western court (possibly for ritual activities); magazines or large food storage areas; suites of rooms that repeat; and architecturally distinct clusters of rooms that communicate with each other but not other rooms.
- One other interesting element of these Minoan urban complexes is that, contrary to city design virtually everywhere else in the ancient world, none was protected by walls. From this fact, some authors have concluded that the Minoans were a peaceful people, but the lack of walls may indicate successful projection of power and a distant border—in other words, an empire.

Minoan Religion

- The large courtyards at Knossos, both the central and the western, are oriented north-south but seem to have distinct uses. The central court may have served political, social, and economic purposes, while the western court seems to have been designed for religious functions.

- The designation of such a large proportion of public space to religion isn't in itself unusual. Many earlier and later cities, such as Uruk and Athens, are dominated physically or spatially by religious complexes.
- The full form and structure of Minoan religion is not known, but it involved large outdoor processions and ceremonies, sacrifices, and what we believe were massive spectacles, all conducted in the western court.
- One of the best pieces of evidence we have for the religious life of this community is a wall painting from Knossos. It shows the section of the palace that defines the western court, with a ceremony taking place there. Interestingly, it gives us a view of the audience, rather than of the ceremony.
 - The roofline of the palace is decorated by abstract pairs of bulls' horns, which Arthur Evans called horns of consecration. The entire side of the palace is apparently converted into bleachers, which are full of male spectators.
 - The most remarkable aspect of the painting is that the central zone is dominated by female figures. These are thought to be priestesses, supreme religious authorities overseeing the ritual.
- The ritual itself may be illustrated by another wall painting, the so-called Bull Leaping Fresco. It shows three figures, apparently one male and two females, leaping over a running bull. Whether this is an acrobatic display, a sacrifice, a sport, or a form of worship is not clear. What is clear is that both men and women were involved, and women were in authority. There is no doubt that these ceremonies were designed to reinforce the religious and, possibly, political authorities who ruled over Knossos.

Food Storage

- The enormous food storage areas argue that the complex controlled food production, storage, and distribution for the region. In Egypt, this was generally the responsibility of temple complexes across

the country, reinforcing their power. Here, it served to stabilize the control of the central authority, which was probably both religious and civil in nature.

- Bulk commodities, such as grain, wine, and oil, were stored in containers and rooms that were solidly constructed and sealed, both to protect the contents from theft and vermin and to protect the rest of the palace against the fires that frequently broke out in such areas.
- The size of the food magazines is one of the factors used to calculate the population of the complex. Along with the size of this six-story building, the storage capacity, and the carrying capacity of the land it controlled, Evans calculated a population of about 100,000 people at its height. Current calculations generally fall between 14,000 and 18,000 people.

Architectural Features

- Much of the complex at Knossos was created using what architectural historians call the *pier-door-pier* (PDP) system.
 - This system consists of a set of double doors flanked by two square piers. The doors folded back into recesses, allowing a large opening between rooms. The system could be replicated in a line to admit the maximum amount of light into rooms on the ground floor.
 - Adjustments of temperature and access into spaces were controlled by the PDP system through closing various doors. This allowed complex seasonal and functional alterations of interior spaces.
 - The PDP units generally occur in pairs in association with verandas and light wells. Light wells were open shafts, often surrounded by staircases, that permitted large amounts of natural light into the center of the building block, creating a complex of alternating open and closed spaces. The PDP as a

structural element replaced solid walls and provided flexibility in the use of spaces.

- The light wells paired with the PDP system defined the construction of the complex, which was extraordinary for its time. The Minoans used ashlar masonry—great square-cut blocks of gypsum—along with timber columns and beams.
- The complex was also provided with a sophisticated water system. The architects arranged for terra-cotta pipes to deliver clean water to various locations around the complex and open channels carved from gypsum to carry away sewage and rain water, which probably helped to flush the system.
- The subdivision of internal space into units around courtyards and open areas suggests subdivisions of the community, but the subgroup structure is unknown, and our knowledge is limited by the poor preservation of the upper floors of the complex. There is good evidence that the complex was five or six stories throughout, but the organization and use of those upper areas is largely speculative.
- Nevertheless, it's clear that the complex operated as a city for about 15,000 people. The architectural and organizational elements are found in later buildings across the Minoan world. In particular, later houses and house models show the PDP system, the use of large windows and columns on the second and higher floors, and many open spaces, such as balconies and courtyards.

Collapse of the Minoan Civilization

- If the Minoan civilization was so visionary and apparently so successful, it's fair to ask why it collapsed. The beginning of the end seems to have been the eruption of the volcano on the island of Thera in about 1628 B.C. This is the eruption that both destroyed yet preserved for us the Minoan city of Akrotiri.
 - As one of the largest and most destructive volcanic eruptions in recorded history, it had a substantial impact on Minoan civilization.

- Initially, there were earthquakes and a tsunami. These were followed by a volcanic winter that may have lasted three years and weakened the Minoan communities primarily by decimating agricultural yields.
- The complex as we know it was destroyed by fire in about 1380 B.C. But it was occupied for about a century before that by another Bronze Age civilization, the Mycenaeans, precursors of the ancient Greeks. The Mycenaeans renovated the complex to add a throne room, a clear sign that their society had a different political organization and, thus, different architectural needs.

Suggested Reading

Preziosi and Hitchcock, *Aegean Art and Architecture*.

Questions to Consider

1. How does the form of Knossos support arguments for and against the peaceful nature of Minoan society?
2. In what ways—from building material to layout and organization to architectural form—is Knossos a radical departure from previous cities?

Akrotiri—Bronze Age Pompeii

Lecture 10

The next city we will visit is called by its modern Greek name, Akrotiri. It is on an island in the Aegean Sea, about 60 miles north of Knossos, but displays many Minoan characteristics. As you recall, the Minoans were not Greeks, spoke a different language, seemed to worship different gods, and organized their society very differently than their better-understood neighbors on the Greek mainland. Because we know so little about them, the architecture of their urban world is critical to understanding their social, political, and religious structures.

Eruption and Excavation on Thera

- The town of Akrotiri is, for good reasons, known as the Bronze Age Pompeii. A massive volcanic eruption blew out the center of the island of Santorini (ancient Thera), obliterating much of the town and damaging what remains. Scientists think that the eruption was the fourth most powerful in recorded history.
- The immediate effects of the eruption—besides the destruction of the island of Thera—included earthquakes, fires, and tsunamis that reached as far as Crete to the south. These were followed by a volcanic winter that, according to records in China, lasted three years and was responsible for destabilizing the Chinese dynasty in power at the time. The Minoan civilization was probably weakened by the event and its aftereffects and, shortly afterward, fell to the Mycenaeans.
- The eruption occurred sometime in the period 1650 to 1550 B.C. For our purposes, the exact date isn't as important as the fact that the eruption, as at Pompeii, both destroyed and preserved the city. When Akrotiri was rediscovered in 1967, houses up to three stories tall were preserved, along with the streets and squares they lined. It was instantly recognizable as a small city, not a Minoan palace complex. Unlike Pompeii, from the lack of personal possessions,

it seems that the inhabitants of Akrotiri had some warning of the eruption.

- Only a fraction of the city has been excavated since 1967. Eight houses have been uncovered so far, comparable to the elite dwellings at Kahun that incorporated domestic, religious, and administrative components. Different than Kahun or Deir el-Medina but in common with Knossos, Akrotiri's houses are not modular. Each is an irregular collection of compact rooms built around a central courtyard or light well. One of the buildings, Xeste 3, is thought to have a largely ritual purpose, although that is debated.

Wall Paintings

- Although we have learned much of Late Bronze Age life from the pottery, architecture, looms, food storage and preparation materials, and burials at Akrotiri, the greatest finds are, without a doubt, the wall paintings. At least one room in each house so far excavated was painted.
- Many of the paintings show subjects that art historians would call *genre painting*, that is, images of everyday life. A young fisherman, for example, was found in one of the upper-floor rooms of the West House, holding up a stringer of fish in each hand, his wrists turned and elbows braced against his waist to counter the weight of the fish.
- Another house has a room in which the walls are painted with a red and white background. Over that background, one wall features a pair of antelopes, while the wall next to it features a pair of boys boxing. The boys seem to be wearing gloves and belts and nothing else. The figures are similar to male figures seen at Knossos, but the subject is not.
- The most intriguing and important of the wall paintings is the Flotilla Fresco, also from the West House.
 - Painted in a style almost exactly like that seen on the wall paintings of Knossos, the entire fresco shows 14 ships sailing, accompanied by dolphins, from what looks like one island



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The wall paintings at Akrotiri are found largely in the upper-story rooms, which may be the higher-status residential chambers.

- to another. The ships are decorated with what appear to be garlands, and high-status individuals are shown on deck, seated under canopies.
- The scene is generally thought to represent a religious festival, perhaps a pilgrimage from a small island to a larger one. The small island may be Thera, and the town shown on it is thought to be Akrotiri. A number of figures are depicted in a collection of buildings of two or three stories in height. The buildings are made of cut stone and have the windows, PDP systems, and flat roofs of Minoan architecture.
- The image on the Flotilla Fresco may be intended to represent Akrotiri, but not every building of the real city was as well constructed as the ones shown there. Some of the houses in the city were made of local rubble stone rather than ashlar blocks. Even

these, however, have certain consistent elements of shared Theran/Minoan architecture.

- These elements—for example, ashlar masonry and the use of wooden dowels rather than tongue-and-groove joints to connect wooden architectural components—probably derived from Minoan work at Knossos. Some of these elements were later transferred to Mycenaean city architecture.
- Certain close connections with Cretan architecture are clear, in particular, the common use of the PDP system. The adoption of such forms at Akrotiri may indicate the need for an architecture that fulfilled the same purposes as at Knossos, perhaps to house extended families or multiple families within a kinship group.

Other Finds at Akrotiri

- Especially significant at Akrotiri is the discovery of the form called a *lustral basin* (a hygienic or ceremonial tub). This form is almost unique to Crete and represents a clear element of Minoan life. Scholars generally conclude that its use here indicates a similar use as at Knossos. Of course, that may not be the case, but given its specific function in ritual purifications, it is thought to show Minoan religious ritual at Akrotiri.
- Also very Minoan are large terra-cotta vessels, many set into the floors of houses, found in Akrotiri. There are find parallels at Knossos in the magazines, where they were used to store such commodities as grain and oil.
 - All of these Minoan elements in architecture and daily life lead to the tentative conclusion that Akrotiri was perhaps on the edge of the Minoan world and, thus, adopted only certain of its cultural elements, retaining a number of its own local cultural features.
 - Many of the decorations on the terra-cotta vessels are identical to ones found on pottery at Knossos. The same can be said of motifs from the wall paintings in both cities, especially many

images that demonstrate an attention to nature, with identical dolphins and flowers.

- There are few personal possessions and no eruption-period skeletons at the site. From this, scholars conclude that the population had enough warning to flee before the final eruption. Many of the objects left behind were of little intrinsic value or too bulky to easily transport, such as the terra-cotta jars. Not every object discovered is Minoan in style. A bronze dagger found at Akrotiri is the same design, blade shape, material, and decoration style as those found at Mycenae on the Greek mainland.

Houses and Ritual Spaces

- The houses were built of local volcanic stones and clay and were usually two or three stories in height. Their roofs were flat and were often supported by central wooden columns standing on stone bases. The ground floors were dominated by areas for food preparation and domestic tasks, while the upper floors were for sleeping and personal space.
 - This is the same pattern found in classical Greek houses of the 5th century B.C. In those, the house is the headquarters for a family, but it operates as economic zone, with the ground floor used for workshops and craft areas, suggesting a public element.
 - If that is the model at Akrotiri, it is a surprise given the differences postulated for the role of women in each culture. Minoan women seem to have had active and public religious duties, while classical Greek women were much more restricted in their public engagement.
 - The houses at Akrotiri closely echo the remarkable find of a terra-cotta model of a Minoan house from the site at Mallia. They reflect its details of window shape and style, proportions, two-story organization of space, and apparent PDP system.
- Xeste 3 is the building thought by many archaeologists to be more than a house. Half of it is believed to be ritual space. Based on the

decorations, as well as the architecture, it may have been where girls were initiated into religious rites. Whether this space served the entire community or a subdivision, such as a religious sect, neighborhood, or family group, is unknown. Given its size and decoration, it may have been used for rituals other than initiation.

- As in the religious wall paintings at Knossos, a painting in a chamber of Xeste 3 that held a lustral basin illustrates female ritual activity. Archaeologists refer to the painting as the Saffron Gatherers Fresco.
 - One panel shows two females in a field of crocuses harvesting saffron. Based on her smaller size and her hairstyle, one of the figures is a girl, while the other is a grown woman.
 - Another panel shows only adult women in the same sort of landscape, apparently also gathering saffron, which was used as an expensive fabric dye.
 - The final panel shows a young girl emptying a small basket of saffron into a larger communal basket that is set at the bottom step of a three-step platform. Seated on a pile of cushions at the top and facing her is a large-scale woman, certainly a goddess. She is accompanied by a griffin, while a blue monkey stands in front of her, seemingly also presenting an offering. The accepted interpretation is that the girl is being initiated into goddess worship, possibly at adolescence. The meaning of the blue monkey is debated.
- The shrines at Çatalhöyük, which were also locations for the worship of a goddess, may provide an antecedent for this organization at Akrotiri. Given that the shrine this panel decorates is integrated into a house, it may represent a neighborhood shrine that was used by a specific kinship group who worshipped together. Certainly, the organization of space at Akrotiri supports such a conclusion more than the idea that the shrine at Xeste 3 was a public chamber for use by the entire community.

- Akrotiri is an extraordinary discovery that bridges the gap in urban spaces between the Near East and Europe. Although the architecture is similar to that at Knossos, the notion of the house as an economic, religious, and residential complex was seen before, at Kahun and Amarna. As the oldest city in the Aegean, Akrotiri marks a transition from large complexes to smaller cities, such as those found on the Greek mainland in Mycenaean culture.

Suggested Reading

Doumas, *Thera*.

———, *The Wall Paintings of Thera*.

Forsyth, *Thera in the Bronze Age*.

Marinatos, *Art and Religion in Thera*.

Questions to Consider

1. If the decoration of their houses and buildings reflects their tastes and identity, what do we learn about the people of Akrotiri? What were their preoccupations?
2. The set of houses at Akrotiri uses a division of space familiar to us today: multistory houses with residences on the second floor. How are they different in the use of space than a modern house? How can you account for that?

Mycenae, Tiryns, and the Mask of Agamemnon

Lecture 11

The small cities of Mycenae and Tiryns are in the northeast part of the Peloponnesus in an area known as the Argolid. Both were among the key Bronze Age cities on mainland Greece, of such power that their reputations were transmitted down into historical times through Greek myth. Mycenae was commemorated as the home of King Agamemnon, the supreme commander of the Greek forces in the Trojan War; Tiryns was the mythical kingdom ruled by the hero Perseus. Founded only 23 miles apart in about 2000 B.C., they represent the scattered populations common in Greece until late in the 4th century B.C., when large-scale cities were first built.

Overview of the Cities

- Both Mycenae and Tiryns were founded inland, relatively far from the sea or any navigable waterways, which sets them apart from the majority of successful cities we have discussed thus far.
 - Mycenae was built on a naturally steep hill with a spring and abundant stone, overlooking a major crossroads and a fertile plain. It was perfectly placed to project control over the region and to restrict movement in and out of the Argolid or, in fact, much of the Peloponnesus.
 - Tiryns was built on a longer ridge that similarly overlooks the surrounding countryside and fertile farmlands. The city was built on three levels, the highest of which contained a palace complex.
- Unlike Knossos or any other Minoan settlements, Mycenae and Tiryns were founded and occupied by Greek speakers.
 - This was proven conclusively with the translation of tablets written in a script called Linear B that were found at a number of the mainland palace sites, including Mycenae and Tiryns.

- The translators, Michael Ventris and John Chadwick, proved that Linear B—rather than a variety of Minoan, as was originally thought—was a Mycenaean form of written Greek that disappeared with the destruction of the palaces circa 1200 B.C.
- The design and construction of the two cities stand in stark contrast to Minoan communities. Both cities are compact, heavily fortified urban spaces that were defined by their walls and palaces. Each city grew to its height in the period 1350 to 1200 B.C.
 - Mycenae initially consisted of the palace on the hill and two lower areas of houses, workshops, and a cult center. Eventually, the city was enlarged to include more territory. The upper and lower cities, subdivisions to improve defense, were developed organically, with no regard to orientation of buildings or attempts to create right-angled spaces or blocks. The upper city was dominated by the civic center/palace, and the lower contained a cult center, perhaps showing a separation between civic and religious authority.
 - At Tiryns, we see the same pattern. A palace occupied the high ground, surrounded by administrative, residential, and storage buildings. This level was sealed off from the larger lower zones, which contained the bulk of the regular housing in the city, as well as workshops.
- It may seem as if, in each case, the upper city dominated the lower; however, it might be better to think of the upper city as the ancestor of the Acropolis at Athens.
 - During the 6th century B.C., when Athens was ruled by a tyrant who championed the lower classes against the aristocrats, the Acropolis was not the exclusively religious zone it became under the democracy of the 5th century B.C.
 - The tyrant lived there in a palace, and a number of the religious structures to Athena were commissioned by him to link him to religious authority, thus reinforcing his rule.

City Fortifications

- The walls are the most remarkable extant elements at both cities. At each, they date to the later period, although why the Mycenaean Greeks constructed these massive fortifications at that time is unknown.
- At Tiryns, the fortifications were begun in 1365 B.C. In places, they were 65 feet thick and about that high. This polygonal masonry, consisting of large, irregularly cut stones, has been termed Cyclopean because the Greeks of the historic period thought it must have been made by the giant Cyclops.
 - The fortifications include bastions, storerooms, and guardrooms and, at Tiryns, long galleries within the walls that allowed defenders to move, fully protected, along the wall. The galleries had small openings, which may have been only for light or for shooting arrows.
 - The roofing of the galleries uses corbelling, a form of arch that essentially relies on courses of stone set successively closer together until they meet in the center. It lacks the strength of a true arch but doesn't require the complex engineering or careful masonry either.
- The walls at Mycenae were begun in 1340 B.C. and expanded for the last time in 1250 B.C. This final phase extended the walls to include



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The triangular carved limestone slab above the lintel of the Lion Gate at Mycenae is the largest work of relief sculpture from Bronze Age Greece.

more urban areas and a spring. In final form, the walls at Mycenae were 3,600 feet long and enclosed 30,000 square miles of area. Built over a period of a century, the walls are of different types of masonry and stone: some Cyclopean ashlar masonry, some irregular limestone. As at Tiryns, storerooms were built within the walls, and bastions and guardrooms were also added.

- The Lion Gate at Mycenae was a product of the 1250 B.C. building program; it included a bastion on the right side of the gate and a wall on the left, allowing the Mycenaeans to flank attackers on both sides.
 - The monumental design shows two lions or griffins with their front legs resting on Minoan altars on either side of a Minoan column of the type found at Knossos.
 - The design might be only apotropaic (intended to keep away evil), but it's hard to ignore the prominence of the Minoan elements, and one might wonder if it's also a celebratory monument proclaiming dominance over Minoan areas.

Grave Circle A

- The final extension of the walls at Mycenae included what the excavator, Heinrich Schliemann, termed Grave Circle A. Given that the Greeks practiced extramural burial, bringing this area into the walls of the city was a remarkable choice, indicating its symbolic importance, no doubt as the burial spot for earlier rulers and perhaps believed to contain the tomb of Agamemnon.
- When Schliemann excavated the Grave Circle, he discovered material consistent with kingship, including a gold death mask known as the Mask of Agamemnon and a diadem. These proved that the Mycenaean cities were ruled by kings, a fact that stands in contrast to the Minoan cities, where we simply don't know who was in charge. This critical political difference is reflected in the form of the cities.
 - Mycenae and Tiryns are dominated by palace structures of the type used by what anthropologists refer to generically as the

Big Man. The Mycenaean term for such a leader is *wanax*; in classical Greek, *basileus*.

- These Bronze Age Greek cities were controlled by a man who used his personal abilities to gain followers from a number of clans that benefited from the security and prosperity of his rule. He reinforced his position with these personal ties, as well as outward demonstrations of authority, such as adopting the trappings of power and renown.

Mycenaean versus Minoan Architecture

- The core Mycenaean form in palace architecture is called a *megaron*. This structure has a columned forecourt and large rectangular room, the center of which is filled with a circular fire pit, while a throne sits on the center of one of the long walls. This is the critical stage on which the king displayed his power. Nothing like the megaron is found in Minoan cities.
- In the lower city at Mycenae was a house from about 1200 B.C. (the final years of the city) known as the House of the Warrior Vase. It was in the zone enclosed during the final phase of fortification.
 - This four-room house was built on a thick foundation, with the lower story constructed in stone with timber lacing and the two upper stories in mud brick. It was built at the same time as two other houses that are all in a row. None of them has recognizable cult or storeroom facilities, suggesting that for those needs, the residents went out into the community.
 - Mycenaean and Minoan vernacular architecture display dramatic differences, reflecting differences in their political systems. Mainland structures are rectangular in plan, while Minoan structures are more square and irregular. Organized around a central long axis, mainland houses are most commonly entered on the short side, with the principal spaces organized along the central axis. In contrast, Minoan architecture features rooms grouped in clusters with no central interior axis.

- The Warrior Vase that gives this house its name is a krater, a wine-mixing vessel, with a single painted frieze of armed Mycenaean warriors marching to war. It is a high-status vessel and an eerie token that foreshadows the violent end of the city.
- Next to these houses was a cult center composed of three distinct temple and cult complexes. Again, in contrast to what's found at Knossos, this is not associated with the main space of the city and, perhaps, not with the king at all.
 - The best-preserved decoration from the cult center is a wall painting fragment that shows a female figure carrying grain. Around her are clearly Minoan decorative elements, including horns of consecration, a column, and a line of rosettes. This figure is thought to be Demeter, who is mentioned in the Linear B tablets, along with the majority of the classical Greek pantheon.
 - For a model for the context of the cult center in the lower city, we should perhaps think of Xeste 3 at Akrotiri—a religious center not placed in a dominant location in the community. Rather than a kinship or neighborhood shrine, this was perhaps originally a suburban cult center to agricultural deities that was enclosed in the city walls in its final phase.
- Mycenae and Tiryns were both destroyed just after 1200 B.C. Responsibility for this destruction is variously assigned, but the Greeks themselves mention a Dorian invasion in this period. The collapse marked the end of the Bronze Age in Greece and was followed by the Dark Ages; in turn, this period is traditionally considered to end in 800 B.C., when Greek culture began to flourish again.
- These cities never fully vanished, however, and in the rise of Greek cities after the Dark Ages, we see the same layout as at Mycenae and Tiryns, with an acropolis dominated by major public buildings and a lower city made up largely of residential areas. The rectangular megaron form is the precursor to the later Greek temple and may indicate a shift in community identity from the house of the ruler to the home of a god as the dominant architecture on the acropolis.

Suggested Reading

Preziosi and Hitchcock, *Aegean Art and Architecture*.

Questions to Consider

1. Do the investments in resources for fortifications at Mycenae and Tiryns reflect insecure cities or cities with the need to project a powerful image?
2. As the first city we have seen dominated by a palace complex, what parallels can be drawn in terms of city design and political structure between Mycenaean and other cities in world history?

Athens—Civic Buildings and Civic Identity

Lecture 12

Athens is familiar to most of us as the birthplace of democracy, tragic and comic theater, philosophy, classical art, history, and much else in our culture. Most of those contributions reached their peak in the 5th-century-B.C. phase of the city, called its Golden Age. The impact of this unique culture is hard to quantify. But for the past 2,500 years, the achievements of this period have inspired and challenged us to fulfill Athens's ideals and to extend its contributions to future generations. The Athens we will explore in this lecture is a product of the building campaign that followed the destruction of the city in the Persian Wars of the 490s and 480s B.C.

The Agora

- Because Athens has been continually occupied since antiquity, archaeology is restricted to a few key areas of the city. For the public spaces, those areas include the buildings on the Acropolis, along its slopes, and in and around the agora. These were but a fraction of the entire city, in which about 120,000 people of all classes may have lived at the time of the death of Pericles in 429 B.C.
- Thanks to the development of Athens's radical democracy, in which almost all public offices were popularly elected, it experienced an unprecedented intervention of politicians in all aspects of public life. This conclusion is supported by one intriguing piece of evidence: ostraca.
 - As we saw earlier, ostraca were the broken or cast-off pieces of pottery that were used as scratch pads in antiquity. In political terms, they were handy objects on which to scratch or paint the name of an Athenian citizen who a voter wanted banished from the city for a 10-year period. The process of voting for such *ostracism* occurred annually in the agora, and thousands of ostraca have been excavated there.

- On the ostraca, we can read the names of every prominent politician of the 5th century, including Themistocles, the man most responsible for the victory over the Persians, and Pericles himself.
- The agora has little architectural form, but the ostraca give testimony to its use as the political heart of the city. Although there's almost nothing to see, because it was a large open area for voters to gather to cast ballots, the finds demonstrate the vibrant democracy and critical civic role of the space.
- Because of the changes in the Athenian democracy that took place in the 5th century, it is called the radical democracy. Eventually, virtually every act of government and every civic and military office was elected by the people at large, the *demos*.
 - A remarkably well-preserved marble relief from Athens in this period shows Athena herself crowning the personified Demos as the supreme power in the state.
 - Given the revised form of government, the agora was renovated to make spaces for government offices and councils. The open area of the agora was cleared of houses to allow for large political gatherings, while buildings for various branches of the new democratic government were constructed along the western edge of the agora.
- The agora was originally a broad, open area where several major roads converged from across the city. In the 5th century B.C., it was gradually formalized, defined by a series of stone pillars that marked the boundaries, and developed with new buildings. The buildings were of the same categories we would look for in a modern small city downtown: entertainment, commercial, religious, civil, legislative, and judicial.
- The Athenians had their own building forms that were different from our courthouses, churches, strip malls, monuments, and government office buildings. For example, they built temples

and enclosed altars instead of churches. The strip mall, however, is almost identical to the Greek *stoa*. This was a long shed with a colonnade across the front and a solid back and sides that began as a covered walkway and developed into a deeper structure to house a row of shops.

- The southeast corner of the agora was anchored by a 60-foot-long fountain house. It contained large basins of water with spouts for filling water jugs. The water ran constantly, fed by pipes that brought the supply from outside the city.
- As in many of our own cities, civic buildings were grouped together in the agora, and their use and form tell us about government in the city. A characteristic building was the Bouleterion, the headquarters for the *boule*, a body of 500 men, selected at random, who held office for a year. They were responsible for calling the assembly and for being on duty in their headquarters, on the west side of the agora, 24 hours a day for government emergencies.
- In addition to a number of altars, a temple constructed on a hill overlooking the agora on its west side defined the religious character of the city center. The temple, dedicated to Hephaestus, the patron god of craftsmen, was part of the 5th-century building boom in Athens. The choice of deity might have been based on the location of a sculpture-casting workshop on the edge of the agora.

The Acropolis

- The centerpiece of the Periclean building program was the rebuilding of the monuments on the Acropolis to replace the ones that had been destroyed in the Persian sack of Athens. The Athenians vowed not to rebuild until the Persians were removed from all Greek territory; thus, a generation passed before the monumental rebuilding on the Acropolis. This program was a radical reinvention of the spaces and buildings for the religious cults on the Acropolis, including the new Parthenon, the most visionary and innovative of all Doric temples.

- The religious domination of the Acropolis differs from the Mycenaean emphasis on the megaron, a royal palace space, at the highest level in the city. It has more in common with the space given to religion at Knossos or Uruk, where religious complexes or spaces dominated, particularly on the highest ground in each city. Here in Athens, the religious identity of the community was linked to its democratic government in the 5th-century-B.C. building program.
- The first component of the program was the Propylaea by the architect Mnesicles, constructed from 437 to 432 B.C. It was a formal entryway onto the Acropolis, placed just at the head of the ramp before one reached the open area of the Acropolis itself.
 - The central portion is an elaborate version of a *propylon* (Greek: “that which is in front of the gate”).
 - The north wing provided an area for the display of panel paintings and may have been used for dining by exclusive groups on special occasions. Called by scholars the *pinakotheka*



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The Erechtheion was designed in a decorative Ionian style, with Ionic capitals and female figures, Caryatids, supporting the roof of a porch in place of columns.

(“picture gallery”), it housed famous paintings that survive only in descriptions by the Greek author Pausanias.

- The south wing allowed access to the Nike precinct.
- Adjacent to the Propylaea was the small sanctuary of Athena Nike (Athena of Victory), built in the 420s B.C. It is a beautiful temple in the Ionic order, a decorative style from Ionia (east Greece) characterized by long bands of relief decoration. This new sanctuary commemorating Athenian military victory was built on a projecting bastion off the edge of the Acropolis.
- The most complex and ritually significant but architecturally difficult building was the Erechtheion, also designed by Mnesicles and built between 420 and 405 B.C. The site sloped dramatically, and the building needed to incorporate at least three separate cult sites.
 - The name means “Building of Erechtheus,” a legendary king of Athens who was buried and may have been born on the Acropolis.
 - In addition to hosting a cult site for Erechtheus, the building was said to be sacred to Poseidon, preserving the marks of his trident in the rock. It was also sacred to Athena, marking the spot where these two gods were said to have competed to be patron deity of Athens.

The Parthenon

- One of the most remarkable things about the Periclean construction on the Acropolis is that because it was a publicly financed project, some of the construction records still exist. We know from literary accounts that the architects of the Parthenon were Iktinos and Callicrates, and the main sculptor was Phidias. One surviving inscription preserves the approval for the design of the Parthenon, the crown jewel of the building program.
- The Parthenon is a unique building in Greek architectural history. It is a Doric temple, characterized by columns with smooth, undecorated

capitals and a sculpture frieze of rectangular panels called *metopes*, rather than a long sculpture frieze, as seen on Ionic temples.

- The Parthenon was also unprecedented in size. The facades are eight columns wide rather than the standard six. Along its base, it measures 228 feet by 101.4 feet. The exterior Doric columns are 34.1 feet high.
- In addition, it has subtle refinements to adjust the building to fulfill visual expectations, that is, to make the temple look consistently level, counteracting an optical illusion for the ends to appear lower.
- The most innovative component of the Parthenon was the inclusion of an Ionic continuous frieze on a Doric temple. This unprecedented decorative element was the longest relief sculpture ever carved in ancient Greece. It runs along the exterior of the *cella*, the room inside the Parthenon holding the cult statue, and was 525 feet long and about 3 feet high.
 - The subject is a procession composed of two long streams of figures, primarily a cavalcade led by chariots that starts at the southwest corner of the building and culminates over the main door on the center of the east end.
 - For centuries, the subject was taken as a visual record of the grand Panathenaic procession, the procession of worship of Athena that culminated on the Acropolis. Some scholars see it as a historical record of the first Panathenaic procession after the Persian War, but others have questioned that interpretation.
 - In 1993, a mythological interpretation was proposed by the archaeologist J. B. Connelly, who argued that the scene was the myth of the sacrifice of the daughters of King Erechtheus in fulfillment of a vow to save Athens from foreign attack. This interpretation also explains the name of the building, Parthenon, which means “Building of Young Girls.”

- Perhaps the most visually stunning part of the entire program was the statue of Athena Parthenos in the *cella* of the Parthenon. This statue was chryselephantine (constructed of gold and ivory), about 40 feet tall, and covered in about 2,400 pounds of gold. It stood in the temple for about 1,000 years, until it was taken to the new Roman capital at Constantinople. The original no longer survives, but small-scale copies preserve its form.

Suggested Reading

Connolly and Dodge, *The Ancient City*.

Questions to Consider

1. What motives might have caused the Athenians to rebuild so many of their public buildings in new and grander fashion after the Persian War? Is the audience for this celebration of Athenian identity the people of Athens or other Greeks?
2. How does the agora differ from other public spaces we've seen in earlier cities? How do you account for those differences?

Athenian Domestic Architecture

Lecture 13

The previous lecture introduced Athens of the 5th century B.C. and its grand public buildings of the post-Persian reconstruction. This lecture looks at some of the domestic spaces of the same period in the Golden Age of Pericles, named for the Athenian political leader and general who guided the city from about 461 to 429 B.C. These domestic spaces include the homes of common people—those who made up the majority of the *demos* (the citizen body)—such as a shoemaker and sculptor, the type of craftsmen who profited from the explosion in building and monument construction of the age.

Common Houses in Athens

- Although it is more common to examine the public buildings of Periclean Athens, it's important to keep in mind that the vast majority of the city was occupied by the houses, shops, workshops, and businesses of everyday Athenians.
 - We are fortunate to have the remains of a few of houses from this period and to know something about the lives and livelihoods of their occupants.
 - The houses reveal to us the social makeup and organization of Athens at the height of its power and the gender divisions that were clear in public but now reveal their bases in private spaces.
- At least 13 houses dating to the 5th century B.C. have been excavated between the south edge of the agora and the slope of the Areopagus hill. These are the majority of classical houses preserved in Athens and, therefore, provide almost our sole knowledge of Athenian classical houses and households.

Home of Simon the Shoemaker

- Simon the shoemaker, whose shop was on the edge of the agora, was an associate of Socrates. Many ancient sources tell us that

Socrates liked to visit and converse with Simon on a number of topics. The great philosopher also came here to discuss matters with the young men who, not being of age, were not supposed to gather in the agora itself. At some point, Simon began writing down these conversations to preserve them. He was, by many accounts, the first author of Socratic dialogues, before Plato.

- Simon would be no more than a footnote in the history of philosophy, except that in 1960, excavations at the southwest corner of the agora uncovered a shop in which the archaeologists found a number of bone eyelets and iron hobnails of the type used for making shoes. They also found a drinking cup with the name of the owner, Simon, scratched on it.
- In writing about Socrates, Xenophon, an Athenian historian and student of the philosopher, mentions a workshop, but the archaeologists found what we would define as a house, that is, a domestic complex used for both residential and commercial activities.
 - Simon's house was right next to the agora; it consisted of a walled complex that included an enclosed courtyard with rooms on three sides. At least part of the house was probably two stories.
 - This amount of space seems far more than would be necessary for merely a shoemaker's shop. It's believed that Simon lived and had a workshop/shop space here.
- This concept of the house as an economic zone that included both residential and commercial activities is consistent with what we know of household organization in the Greek city. Such a pattern of urban structure is not exclusive to the ancient Athenians or even Greeks. At least one house in the Bronze Age city of Akrotiri was a residential/commercial complex, as well. The so-called villas of the skilled workers at the Egyptian city of Amarna were also combined complexes.
 - The word *economics* has as its root the Greek term for house, *oikos*, and it refers primarily to household management. For

the Greeks, the house was partly a residential space but not entirely, and the modern concept of private versus public space doesn't apply to houses in the ancient world.

- Parts of Simon's walled compound were accessible, at least during daylight hours, to anyone who had a legitimate reason for being there, and the range of people in this space for commercial or social reasons was vast. That's one of the lessons of the story of Simon's workshop as a meeting place for Socrates and the youth of Athens. Gathering in public areas was common for, among other reasons, schools.
- In fact, much of the ancient Greek social life was conducted outside the house. Men regularly congregated in public places, such as the agora, sanctuaries, and gymnasia. Philosophers taught or discussed and debated ideas in public areas. The Stoic school of philosophy gets its name from its traditional meeting place, a stoa in the Athenian agora.

Sculptor Complex

- Immediately south of Simon's house/workshop was a similar complex that was occupied by a series of sculptors from 475 to 275 B.C.
- Excavation of the complex discovered tools, marble dust, and several pieces of partially worked stone. Two unfinished pieces of sculpture, a relief head that was probably a study for a tombstone and a statuette of an enthroned goddess, were key evidence supporting the conclusion that this site was not just for marble carving but for sculptors.
- The walled complex contained several rooms grouped along three sides of a courtyard. The rooms on one side were thought to be a two-story house; flanking it were a single-story workshop and marble storage spaces. The second story is where any women's quarters (*gynaecium*) would be located. In other words, the house was designed so that certain parts, such as the workshop area, were

accessible, and others, particularly those occupied by women in the household, were restricted from casual access or even view.

- The first sculptor, Micon, occupied the property in the mid-5th century B.C., and the second, Menon, in the first quarter of the 3rd century B.C.
 - Micon was both a sculptor and a leading painter of the period; some sources credit him, along with Polygnotus of Thasos, with the creation of the techniques that allowed painters to show receding space in wall painting. The two of them were responsible for the Painted Stoa in the agora at Athens. A bone tool bearing the name of Micon was found in the building.
 - The second sculptor was identified as living and working here by a cup with his name scratched on the bottom of it.
- The area of the sculptor complex was likely a residential and light industrial zone in the 5th century B.C. The location was probably attractive for shops because it was immediately adjacent to the agora and along a major road. The excavations of the agora have found other evidence of marble working also on the south side of the square but probably architectural pieces, not sculpture. Still, this may have been a marble-working quarter in the city.

Gender Separation in Athens

- A third house excavated just south of the agora reveals less about industry but more about domestic space and gender separation in 5th-century Athens. This house, also two stories, was large, with 10 rooms on the ground floor surrounding a large courtyard on three sides. The courtyard was framed by a portico that probably supported a second-floor balcony.
- The second floor probably held the living space for the women of the household. The only identifiable room on the ground floor was an *andron* (men's dining room) immediately to the left of the entrance and opening directly onto the courtyard. The *andron* was a space for male entertaining, a square room, 14.5 feet on a side, with space for seven dining couches that lined the walls.

- The *andron* was traditionally placed on the ground floor, perhaps for a variety of reasons, such as access to the courtyard and kitchen area, to mark it as reception space near the front of the house, or to create as much distance as possible between it and the women's quarters on the second floor.
- Given its use as the primary reception space for males from outside the household, its placement close to the door and furthest from the women's suite makes sense.
- The premier male entertaining event was the symposium, an opportunity to indulge in food and drink, as well as music, games, poetry, and discussion. Men reclined, generally two to a couch, and socialized with other men of the same class, drinking wine cut with water.
- This idea of a male-only drinking party is not a social aberration, as a bachelor party would be today. Instead, it is characteristic of the largely separate lives led by men and women in ancient Athens.



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Plato's Symposium allegedly records a discussion on the nature of love that took place at a typical gathering of Greek men.

Men were permitted to talk to other men and had more in common with them. They led lives closer in activities and interests with other men than with the women in their own households.

- Likewise, women did not socialize freely with men and passed much of their time in the household with other women. The accounts in literature and history and the images on Greek art seem to reinforce that conclusion. Genre paintings of contemporary interiors and activities rarely show men and women interacting as social peers.
- Part of this isolation may have been the result of the enormous amount of work that women were expected to undertake to keep the household going. In a world with no labor-saving devices besides slavery and no good artificial light, all the activities of running the house had to be carried out by women during daylight hours.
 - These tasks included cooking, cleaning, weaving, and perhaps raising chickens or a pig as a source of meat. The large open area of the courtyard was probably critical to many of these domestic activities, especially those that were messy, such as slaughtering animals or dyeing fabric.
 - Women were also largely, if not solely, responsible for carrying water from the fountain house in the agora to the home. This was a heavy, tedious job, but it allowed ancient Athenian women to leave the house on a regular basis and engage socially with other women.

Public Discourse

- We've learned a bit about the lives of common Athenians living on the edge of the agora, the primary site in the city for public gathering and political discourse.
- Athens was designed for extended face-to-face discussion of all sorts of subjects, particularly the political and religious.

- In a similar fashion, we have developed our own forms of civil engagement in our homes today with the arrival of the Internet, where discussions take place among people but without the need for them to be in physical proximity. These debates may not always rise to the level of Socratic dialogue, but they are a form of public communication that has shifted the location of that activity back to the home, as it was in Athens.

Suggested Reading

Ault and Nevett, eds., *Ancient Greek Houses and Households*.

Connolly and Dodge, *The Ancient City*.

Morgan, *The Classical Greek House*.

Tsakirgis, “Living and Working around the Athenian Agora.”

Questions to Consider

1. How does the extended interaction among Socrates, Pericles, and a shoemaker exemplify the democratic realities of Athens?
2. In what ways are the separate lives of men and women seen in the architecture, arrangement, and obligations of the Greek house?

Hippodamian Planning—Miletus and Ephesus

Lecture 14

Hippodamus of Miletus is credited with being the first Greek city planner to use orthogonal planning, with broad avenues and streets at right angles, creating blocks. But he also did something more. He decided that the layout and design of the city should deliberately reflect an ideal social order. The problems that cities had, he felt, were based on poor design, as well as poorly ordered government—and the two problems were related. That's why when he was called on to write a new constitution for Miletus, Hippodamus also redesigned the city, joining city form and government in a single community.

Orthogonal Design and Social Order

- Miletus, along with other cities in Ionia, needed to be rebuilt in 479 B.C. because it had been destroyed in the Persian Wars. The city is in an area occupied by the ancient Greeks but in close proximity to the advanced and much older urban civilizations of Asia. This proximity may have been a factor in the development of Hippodamian planning.
- It seems likely that Hippodamus had at least heard of Near Eastern and Egyptian cities designed with orthogonal planning. He may even have visited them personally. Certainly, his culture encouraged exploration and personal discovery, and he lived in a region with a tradition of scientific and historical inquiry.
- In Miletus, the social order was reflected in terms of placement and proportions in the city. That is, the size of the blocks Hippodamus laid out in the new city of Miletus differed depending on the category of use: public, sacred, or private. And, of course, the arrangement of these components of society takes on significance; as a proponent of democracy, Hippodamus deliberately created private blocks that are similar in size. In fact, the city joins together a political philosophy with practicality.

- We have the testimony of Aristotle on this point as he described Miletus: “[Hippodamus] divided the land into three parts, one sacred, one public, the third private: the first was set apart to maintain the customary worship of the Gods, the second was to support the warriors, the third was the property of the farmers.”
 - These divisions can be readily seen in the plan and layout of the city; the public areas occupy a broad central zone across the city, with the housing blocks almost evenly divided to the north and south. The larger public blocks give common space for civic, commercial, and religious activities in a way roughly familiar to us from the downtown of a small city. Most of our planned communities, however, don’t create blocks in the center that are double or treble the size of the residential blocks. The population here was about 50,000.
 - This central zone was overseen by the elected officials, whose election and duties were also described by Aristotle: “As to the city officials, he would have them all elected by the people, that is, by the three classes already mentioned, and those who were elected were to watch over the interests of the public, of strangers, and of orphans.”
 - The interests of the public obviously included a great amount of trade as the large spaces that stretch from the harbor to the center of the city make clear to us.
- Hippodamus was involved in shaping the laws of Miletus, but the constitution he wrote no longer exists. Thus, Aristotle is critical as a source; he concluded that Hippodamus “was the first person not a statesman who made inquiries about the best form of government.” That Aristotle credited him as the inventor of the art of planning cities is a powerful indicator of the influence of Hippodamian planning.
 - That influence, of course, continues today in the design of cities, but more interestingly, Hippodamus presented something of a model to other city and constitutional planners. Thomas Jefferson, whose work designing the University of

Virginia was based on Hippodamian principles, is perhaps the most important.

- Jefferson designed the university campus to reflect his philosophy of education, with the library at the symbolic center of campus. He was also inspired by Hippodamian notions of government in his proposals to divide the new U.S. government into three sections.

The Stoa

- One element of Hippodamian planning not mentioned by Aristotle yet critical to its success and an example of its flexibility is the use of the stoa. This Greek architectural form can be defined as a portico or roofed colonnade with a line of columns along the front side—generally facing a street or open piazza—and a solid wall along the back.
 - It is flexible because it is essentially modular and can be made to any length and in varying widths as long as enough timbers are available to make the roof trusses. It can also be expanded up to two stories when desired.
 - The rear supporting wall can be pierced with doors for a line of rooms behind, and narrow versions of it can go up over existing sidewalks to create covered walkways through a city. These, perhaps unsurprisingly, were used on the most important roads so that stoas created a sort of armature through the city that made the significant avenues visually distinct.
 - The Romans eagerly adopted this Greek invention—so much so that it was claimed that in the late republic, one could walk across the city in the shade thanks to all the stoas that were built in the 2nd and 1st centuries B.C.
- Stoas were also flexible enough that they could be used as a framing device along all four sides of a square. Public areas, notably the agora or public square, were further enhanced architecturally by these forms, which meant that stoas became visual markers of

public spaces. Single stoas became the four-sided porticoes that surrounded later Greek sanctuaries and Roman forums.

Formal City Entrance

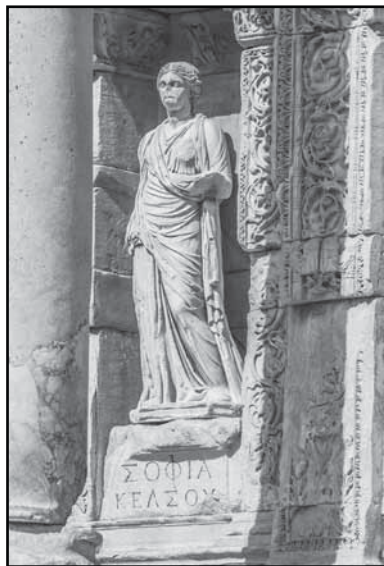
- Another element of city design that distinguished public areas was the grand, formal entrance. This also developed in the Ionian region of eastern Greece at and around Miletus.
- Probably inspired by the Near Eastern tradition of grand entryways, Greek cities began to create large architectural frames for their city gates and market entrances. These were often two or three stories in height, composed of alternating bays of projecting and receding units, and were used as frames for sculptures.
- Many of these formal entrances are found in eastern Greek communities, and their statue groups of patron deities, personifications of the community, and local elites served to define the community to all who entered the space, whether it was the city itself or a market square.

Ephesus and Piraeus

- Hippodamian planning, once it was seen at the newly refounded Miletus, became all the rage. We can see its slightly later application just up the coast at the site of Ephesus, another of the leading Ionian cities.
- Hippodamus had no interest in dramatic presentation or integration of the city with its landscape. He imposed his plan of blocks without regard for topography. The rigid application of Hippodamian planning to sites that are mountainous or even very hilly led to some streets that were too steep for wheeled traffic. At Priene and Ephesus, for example, terracing was needed to fit the plan to the landscape, and certain streets became staircases.
- One refinement of Hippodamian planning at Ephesus is seen at the theater, which is oriented with the streets. This is in contrast to Miletus, where the theater is the outlier in the plan—the one feature

of the city that does not line up with the orientation of the city blocks. At Ephesus, the theater is part of the inflexible application of the design to the landscape.

- Another refinement at Ephesus is the further use of stoas to line key avenues in the city, notably, the major road from the harbor to the center of the city. The Ephesians developed this idea to create a framework that distinguishes certain streets above others. To the stoa, the Ephesians added the sculptural display of the formal entryways found at agoras in the area. In some cases, the sidewalks under the colonnades were covered with mosaics. Such refinements are a direct development of Hippodamian planning elements.
- Another result of Hippodamian planning is the invention of the terrace house. A number of these are found at Ephesus, in which the rooms are each on a different level, often rising, room by room via small terraces from the front to the rear of the house. This adjustment was necessary because of the rigid application of the plan to the steep slopes of the hills in the city.
- Hippodamus is also credited by Aristotle with laying out Piraeus, the harbor town of Athens. As at Ephesus, the orthogonal scheme was applied without regard to the irregular topography. To honor Hippodamus, the agora in Piraeus was named for him.



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In the stoa at Ephesus, statues are anchored to the columns of the colonnades that line the streets, making each street a long line of sculptures.

Continuing Influence of Hippodamus

- There's no doubt that Hippodamus had a bold vision for Greek cities. He, for the first time, decided that cities should be designed from the outset to reflect their constitutions and their social orders. He imposed order on the chaos that had previously existed in Greek urban areas, an idea took hold and, in his lifetime, transformed the expectations for cities. In fact, it may have been at least partially responsible for a surge of city foundations that occurred in the 200 years after his death.
- Of course, Hippodamus's influence continued far beyond that. For instance, without Hippodamus, it's impossible to imagine the work of Pierre Charles L'Enfant, the designer of Washington DC. The layout of that city, particularly the arrangement of public buildings with the Capitol at the center, is based on the importance ascribed to the legislative branch of government.
- The arrangements of Hippodamus in creating different districts for, among other things, commercial and government activities also inspired the rational, modernist work of such urban planners as Robert Moses, whose designs called for separate districts for different activities. Of course, the debate about the extent and limits of this form of design is ongoing, with influential planners, such as Jane Jacobs, arguing that they have been taken too far.

Suggested Reading

Wycherly, *How the Greeks Built Cities*.

Questions to Consider

1. What factors of history and geography encouraged the development of Hippodamian planning in Ionia rather than another Greek region?
2. How did Hippodamus's planning move beyond merely orthogonal planning to create a vision of society in city layout? Where did practical difficulties result from his ideological priorities?

Olynthus—A Classical Greek City Preserved

Lecture 15

In Lecture 13, we discussed some classical houses from Athens. In Lecture 14, we discussed Hippodamus of Miletus and his approach to Greek city planning. In this lecture, we will put the two together and see a newly planned city, Olynthus, based on the principles of Hippodamus but providing the best-preserved classical houses from anywhere in the Greek world. Olynthus represents the application of Hippodamian planning in another region of Greece, one almost as far from Athens as Miletus. Olynthus was founded on two flat-topped hills in what is today northern Greece, overlooking a fertile plain about a mile from the sea at the Gulf of Torone.

History of Olynthus

- The city of Olynthus was founded in 432 B.C. as a defensive move against Athens at the start of the Peloponnesian War. As it turned out, this was a wise move because Sparta, the ally of Olynthus, won the war.
- The city was a deliberate foundation, in some ways parallel to Amarna or Kahun, in that it was not settled for the usual reasons of defense, transportation, or agriculture. Here, the founding was a case of *synoecism*, the process by which a number of communities, usually small, came together to found a new city-state (*polis*). The new city of Olynthus quickly became a leader in the region.
- Fifty years after the end of the Peloponnesian War, another conflict arose. This time, the danger of conquest came from the north, from Philip of Macedon, the father of Alexander the Great. Olynthus allied with Athens against him, but this was not a wise choice.
 - In 348 B.C., Philip besieged the city. Two of its leading citizens betrayed it, and Philip looted and destroyed Olynthus, selling its population into slavery and wiping it out completely.

- What was preserved for us at Olynthus is the ground plan of an entire classical Greek city, laid out in the 5th century B.C. and with no later occupation or building.

Layout of the City

- Olynthus stretches across two hills, called the North Hill and the South Hill. Altogether, it covered an area about 1,300 feet by 4,900 feet. There was an earlier settlement on the South Hill, but the North Hill was laid out in 432 B.C. The use of a Hippodamian plan is clear.
- Originally, seven or eight large avenues, each about 23 feet wide, ran the length of the settlement from north to south. These were crossed by shorter, narrower streets that divided the city into long but narrow blocks. These blocks were generally divided into 10 houses, each of which was two stories tall and designed around a courtyard.
- The agora was located in the southwest edge of the North Hill, near the eastern gate. Remains of some minor buildings, including a stoa and a public fountain house, were excavated in the northeast corner of the agora near what is thought to be the Bouleterion. No other civic, judicial, or religious buildings or spaces were found. They were probably in the area between the hills, centrally located, and are now washed away as a result of centuries of erosion.
- Along the east slope of the North Hill was discovered a suburban area that included a number of villas—larger houses situated outside the city's walls that belonged to wealthier members of the community than the town houses within the city.
- The rest of the city was protected by walls, thus necessitating the siege by Philip, but he leveled it so effectively that the line of the walls is largely lost, and their form and extent is something of a dilemma.

Houses at Olynthus

- More than 100 houses have so far been excavated and studied at Olynthus, more than at any other Greek site. The houses at Olynthus

belong to the *pastas* type, which is found across classical Greece, though it can be studied only at Olynthus in any number. *Pastas* is the term for a portico that ran along a single side of a courtyard in the center of the house. The standard house at Olynthus was roughly square and approximately 55 feet across.

- Two main axes cross the standard house from east to west at a right angle to the house entrance on the north or south side. The house was divided almost exactly into two nearly equal parts by one east-west axis. The northern half was again divided into two portions by a second east-west axis.
 - These axes govern the placement of the load-bearing features: east-west walls and pillars, which had to be aligned to support the common roof that ran over the northern half of the entire row of houses.
 - The standardization of the layout of adjacent houses in the northern part of the town allowed the walls to support the common roof over an entire block of row houses. The courtyards were typically oriented to the south.
- In the typical row house, a single entrance from the street led into the central court, the largest room in the house, with shops, service rooms, and/or storage rooms at the front, and the residential rooms (*oikos*) and an *andron* (reception room for men) at the back. The courtyard was located in the southern half of the house, with the *pastas* (long east-west portico) and main rooms to the north.
- In most houses, the *andron* opened directly onto the court or onto an anteroom/porch to take advantage of the light and air. It had a slightly raised seating platform around the perimeter to accommodate dining couches.
- Densely built cities, such as Olynthus, usually had two-story houses. The central courtyard was not roofed because it provided needed light and air to the interior. Exterior windows were rare because of party walls with adjacent houses. The few windows that

would have opened to the street were high off the ground and small to maintain privacy and security.

- The standard house on the North Hill was organized around one of these central cobbled courtyards. Xenophon, a contemporary historian, explained that in houses with courtyards that faced south, the sun's rays penetrate into the *pastades* in winter, but in summer, the path of the sun is directly overhead and the roof shades the courtyard. As well as being the main source of light and air, the courtyard was a spatial focal point. With a paved floor and open roof, it allowed for the collection of rainwater in underground cisterns to be used for household needs.

Artifacts at Olynthus

- Thanks to the careful excavation and recording of the houses at Olynthus, the findspots of artifacts can help determine the function of rooms as nowhere else. There are, however, limits to this technique.
 - Olynthus was under siege for months and cut off from its agricultural lands; thus, we wouldn't expect farm tools to be placed for immediate use.
 - Because the city was sacked by Philip's men, many of the finds may not be where they would have been for daily use. Finds of jewelry and female toilet articles in the courtyards near the fronts of the houses are probably the result of looting, rather than indicators of where they were generally used or stored.
 - Further, the absence of certain objects doesn't indicate their lack in the house but might mean that they were thoroughly looted.
- Still, studies combining artifact assemblages and room size, accessibility, and decoration allow us to draw some conclusions about daily life in this Greek city.
 - For example, some objects were heavy, set in the floors, and/or of limited value as loot. For this reason, when shallow stone washing bowls, portable altars, amphoras for storing water,

grindstones, and loom weights are found in the courtyard or *pastas*, we are reasonably certain that they were used there.

- The courtyard and *pastas* as a single unit seem to have hosted many activities, including weaving; household religious rituals; food preparation, such as grinding grain; and possibly some commercial activities.
- In one house, the courtyard yielded 16 loom weights (perforated ceramic blocks for stretching threads on a loom); multiple terra-cotta vessels, including bowls, a *mortarium* (a vessel for pounding or mixing food), and a *guttus* (a pitcher); a lamp stand; three *lekythoi* (perfume bottles); and broken pieces of many other vessels, including a bronze cup. Household material included fragments of four terra-cotta female masks, various pieces of hardware, and other miscellaneous finds.
- This range of material leans toward food and fabric production; the weights provide evidence of commercial activities in the



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Floor mosaics in Olynthus allow archaeologists to discern high-status from lower-status spaces.

house, suggesting that the courtyard is where the various events and activities in the house intersected.

- Archaeologists refer to this as a “flexible pattern of spatial behavior,” meaning that attempts to assign a single or even primary use to a particular space in the Greek house are probably doomed.
- In the *pastas* of the same house, excavators discovered a *hydria* (water pitcher), an *olpe* (a small wine pitcher), a bowl, a *guttus*, two *kantharoi* (drinking cups), two *lekythoi*, and other vessels. This material was largely used for dining and drinking, and most of it was of high quality. It was probably not used in the *pastas* but stored there on shelves or in chests along the wall. Some of the material was probably for use in the *andron*, just off the courtyard.
- Olynthus also has the largest collection of pebble floor mosaics in Greece and among the earliest. Formal reception rooms were ornately paved in black-and-white patterns that often displayed mythological subjects, including heroes, while service rooms had packed-earth or cobble floors.

Suburban Villas

- The suburban villas of the elites on the east slope of the North Hill suggest that the residential areas of the city were divided, at least informally, by wealth. These more affluent peristyle houses were of greater scale and wider than the *pastas* houses in town, some 81 feet, rather than the 55 feet of the town houses.
- The peristyle form was a colonnade that surrounds all four sides of the courtyard, not only the single side of the *pastas* type. The larger size allowed for more richly decorated formal rooms, such as the *andron*, to be grouped around the main courtyard and entered from small anterooms to keep them even more exclusive.

- One of these villas was dubbed the Villa of Good Fortune by the excavators. Four of the rooms on the ground floor had elaborate mosaic floors, including the *andron* and the anteroom that led to it, while the front of the house had a line of shops or workshops along the street.

Suggested Reading

Ault and Nevett, eds., *Ancient Greek Houses and Households*.

Cahill, *Household and City Organization at Olynthus*.

Connolly and Dodge, *The Ancient City*.

Morgan, *The Classical Greek House*.

Nevett, *House and Society in the Ancient Greek World*.

———, *Domestic Space in Classical Antiquity*.

Questions to Consider

1. How does the evidence from houses at Olynthus build on our knowledge of domestic life beyond what we can learn in the classical houses from Athens?
2. Can you think of modern parallels to the arrangement of rooms and uses in the Greek houses of Olynthus, from the perspective of either residents or visitors?

Wonder and Diversity at Alexandria

Lecture 16

Alexandria represents a number of developments in ancient cities: the pattern of religious buildings as central structures in the urban landscape, an extension of the Greek version of orthogonal planning, and a reflection of the forms of government within city buildings. The fact that Alexandria is the first major city we've seen built directly on the sea coast demonstrates the security of Alexander's empire and the primary role of transportation in the city's foundation. The harbor, royal palace complex, and sanctuaries are key elements in the city's physical makeup, creating a new identity for its inhabitants. Alexandria was the first massive city we know from antiquity, with perhaps 300,000 people at its height—second only to Rome in size.

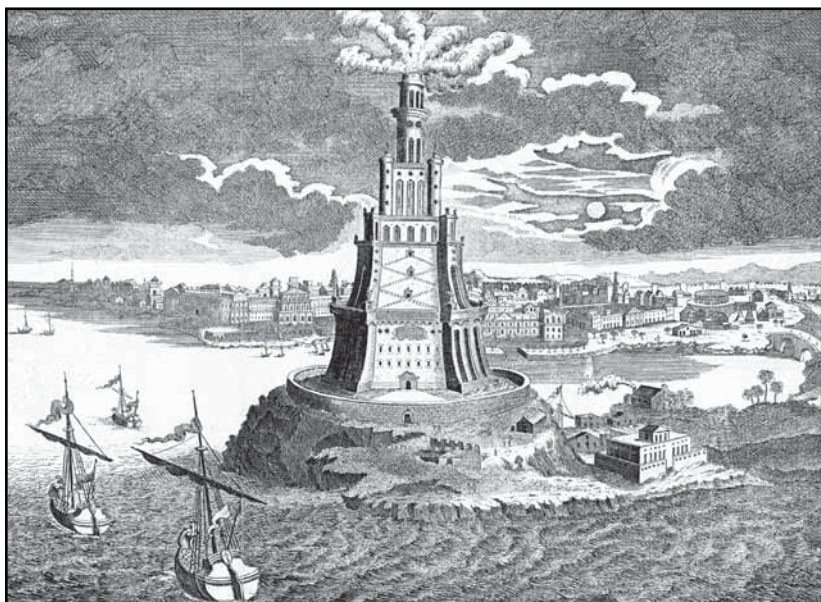
Alexander and Dinocrates

- Alexander was born in 356 B.C., the son of Philip of Macedon. His successful invasion and conquest of the Persian Empire led to a diffusion of Greek colonies and occupation that stretched from the Mediterranean Sea to India. Alexander decided to rule this new empire by founding cities and creating a joint Greek-native culture.
- One story about Alexander involves his initial meeting with the architect Dinocrates of Rhodes. Frustrated in his attempts to gain a private appointment with Alexander, Dinocrates showed up at one of the ruler's public audiences dressed as Hercules. A tall, well-built man, he immediately attracted attention.
 - Then, Dinocrates gave his pitch: He proposed carving all of Mount Athos into the form of a man holding a city in his outstretched left hand. In his right hand would be a libation bowl into which all of the waters that flowed down the mountain were collected before they plunged into the sea.
 - This audacious vision caught Alexander's attention. Although he rejected the proposal as impractical, he retained Dinocrates.

- In 331 B.C., when Alexander decided to found a city along the Mediterranean coast of Egypt as the great harbor his empire needed and as its western anchor, he turned to Dinocrates. Alexander approved the plans of Dinocrates, but when it came time to lay out the city, no chalk was available to draw the lines, and grain had to be used instead. This was a symbolic act for the city that became the greatest harbor of the Mediterranean and the largest exporter of grain, particularly during the Roman period.
- Despite his theatrical plans for Mount Athos, Dinocrates created a plan for Alexandria that was, by this time, traditional. He used Hippodamian planning to grid out the area. The city was defined by a series of long east-west avenues, each about 100 feet wide, that ran parallel to each other and the coast, all crossed by shorter, narrower streets that ran north-south.

The Lighthouse

- Alexandria did not, however, lack dramatic features. Dinocrates exploited two areas of higher ground, one near the great harbor and one further inland, for sanctuaries. The large temple to Poseidon, overlooking the harbor, and one to Serapis, overlooking much of the city, served as landmarks in the otherwise flat city. The most significant landmark, of course, was at the harbor—the great lighthouse of Alexandria.
- The harbor was created by incorporating a small island, Pharos, into the enormous breakwaters. At the end of the island, on the right to those entering the harbor, was the lighthouse, called the Pharos from the island's name. One of the most famous buildings in antiquity, images of it survive in almost every artistic medium, including paintings, mosaics, coins, terra-cotta reliefs, and terra-cotta and bronze statuettes.
- The lighthouse, considered one of the Seven Wonders of the Ancient World, was a great tower and fire platform that burned night and day to guide ships safely to port. The dimensions of the lighthouse reported in ancient sources vary enormously, but it was



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The scale of the lighthouse at Alexandria and the idea of evoking a sense of wonder in viewers remained themes of art and architecture under the successors of Alexander.

perhaps as much as 450 feet tall, and the light was said to be visible at night more than 100 miles away. It was decorated with statues of the savior gods, probably Poseidon and the Greek rulers of Egypt after the death of Alexander, the Ptolemies.

- The lighthouse collapsed in an earthquake in the 14th century. The stones from the building were used to construct a fort that still exists today on the foundations of the original lighthouse.

Ethnic Separation in Alexandria

- Alexandria, eventually a city of 300,000 people, was essentially a Greek occupation in Egypt. The Greek rulers and ruling classes brought their own political system, culture, language, and architecture and imposed them on a land already possessing these

features. To maintain the peace in this occupied area, the Greek planners and rulers of Alexandria created a new form of separation in the city, not by class, occupation, or wealth, but by ethnic group. Various quarters of the city developed for Greeks, non-Greeks, and native Egyptians.

- Rhakotis was the native Egyptian quarter, within which the Serapeum was found, the sanctuary to Serapis.
 - Bruchium, the royal Greek-Macedonian quarter, occupied the front of the great harbor, with public buildings, including the museum and library. This was the cultural, economic, and administrative heart of the city.
 - The Jewish quarter was almost as large as the Greek quarter and home to the largest Jewish community in the world at that time. It was governed by a Jewish council and laws and was essentially its own walled city. The Jews retained their culture and religion but also learned Greek and were citizens of Alexandria, not Egypt, an important distinction in Ptolemaic Egypt.
- Along with these three major groups (Greeks, Egyptians, and non-Greek foreigners) were, as is typical for a major harbor community, large numbers of foreigners who came from as far east as India and as far west as modern Spain. Alexandria was a remarkably successful international community, with distinct neighborhoods around the bay and a population drawn to it from all the areas connected to it by trade.
 - Peace among the various ethnic groups and their continued acceptance of Greek-Macedonian rule was, naturally, of critical importance to the Ptolemies, who ruled Egypt after the death of Alexander, and to the Romans, who took over after 300 years.
 - One means of cultural unity and control the Ptolemies hit on was the creation of a new cult that could be worshipped by Egyptians and Greeks alike. This was the cult of Serapis, a new deity that was a syncretism between the traditional Egyptian worship of Horus, Osiris, and Isis and Greek notions of divinity.

- Serapis was anthropomorphic, as were Greek gods, but combined the name and qualities of Osiris and Apis, two deities that were broadly popular in Lower Egypt. This was the region between the old capital at Memphis and the Mediterranean, where Alexandria was founded.
- To cement this new religion, Ptolemy I constructed an enormous Serapeum, a sanctuary to Serapis, on high ground in Alexandria within the native Egyptian quarter. The placement of the Egyptian quarter around the temple was not a coincidence but a statement of the purpose of the temple as a focus of religious attention. Serapis was a god of fertility and abundance and was a patron deity of the grain supply, Alexandria's major export.
- Although Alexandria did not remain free of urban ethnic conflict, the cult of Serapis seems to have been a great success. It was wildly popular in Alexandria and spread across the Mediterranean.

The City as a Cultural Center

- The success of Alexandria as a culturally diverse metropolitan area is seen not just in its population and trade but in its amazingly quick rise to the status of a Greek cultural center. Alexandria became the home for scores of Greek scientists, authors, and cultural figures for the 300 years of Ptolemaic rule. The needs of the new city, along with the wealth of the Ptolemies and their desire to promote Greek culture, also led to an influx of Greek artists.
- These artists created a new school of sculpture, as well as some of the finest works of art from the Greek world. Some of these artworks were of particular significance because they were designed to promote Greek culture. For example, a number of marble reliefs carved in Alexandria and found around the Mediterranean display complex images of the apotheosis of Homer—a quintessentially Greek subject.

- Workshops of artists in all media, including stone sculpture, terra cotta, and glass, flourished in the new city. Naturally, an entirely new mega-city needs new art, but the fact that it was the capital of the kingdom of the Ptolemies also meant that the rulers commissioned tremendous amounts of official art in virtually all media. These works were in the new, hyperrealistic Hellenistic style that developed from the late classical era. Some of the results, such as the glass portraits created by these artists, have not been duplicated.
- Mosaic work was a particular specialty because many of the wealthy in Alexandria wanted this type of artistic flooring. These were not the pebble mosaics of Olynthus, nor the black-and-white abstract designs common in Italy at the time, but cut cubes of multicolored stone set into elaborate figural designs.
 - Many of these mosaics were meant to replicate the illusionistic elements found in painting. The effects could be astonishingly lifelike, with realistic mass, shadows, and receding space.
 - One popular motif was the unswept floor, which looked like a dining-room floor after a party, with realistic food scraps and drinking cups scattered about. Other motifs included still lifes and realistic portrayals of pet animals set within their own spaces and lighted like paintings.
- Despite this explosion of Greek culture, the Greeks in Alexandria were careful to create a local culture that blended and respected the local Egyptian traditions. That led to the unique tomb chambers found under Alexandria from this period that combine Greek architectural features, such as Doric friezes, with images of traditional Egyptian deities, including Amun, Osiris, Isis, and of course, Anubis, the god of the underworld.
- Alexandria demonstrates how a great city in a perfect location can thrive even when the country for which it was founded no longer exists. It survived the breakup of Alexander's empire and the collapse of the Ptolemaic kingdom in 31 B.C. As part of the Roman Empire, it was the critical harbor for supplying grain to

Rome. More than that, it was honored by the Roman emperors, who traveled there personally, starting with the first emperor, Augustus, who visited the tomb of Alexander the Great. This tomb has not been discovered in modern times.

Suggested Reading

Empereur, *Alexandria Rediscovered*.

———, *Alexandria, Jewel of Egypt*.

Fraser, *Ptolemaic Alexandria*.

Green, “The New Urban Culture.”

Vrettos, *Alexandria*.

Questions to Consider

1. In what ways and in which areas was Alexandria created as a Greek capital of an occupied country that projected the values and identity of the occupiers?
2. How did the culture of Alexandria develop, either deliberately or organically, to create an amalgam of Greek and Egyptian cultural elements?

Pergamon—The New Theatricality

Lecture 17

Pergamon illustrates the rich variation of city design from antiquity. It's not all either Hippodamian planning or organic growth, but here, we see a truly new form of city that emphasizes the appearance and emotional response of the viewer. Pergamon's monuments and public buildings were designed to create multiple references to Athens of the Golden Age of Pericles. The Parthenon and Temple of Athena Nike from the Athenian acropolis were repeatedly cited in subject and architecture. Pergamon also competed with Alexandria to be considered the new cultural center of the Greek world. In many ways, Pergamon, like Washington DC, serves as an example of a city created as a deliberate inheritance from older cities and civilizations that it emulated.

Historical Background on Pergamon

- The city of Pergamon, located in the Anatolia region of modern-day Turkey, is founded on a steep ridge that is one of the most naturally defensible spots in the Mediterranean. It was selected for its defensive capabilities as the perfect location for his treasury by King Lysimachus, one of the Greek successors to Alexander the Great's empire.
- King Lysimachus placed Philetaerus, who had apparently served in his army, in charge of his treasury at Pergamon. To ensure that Philetaerus didn't attempt to found his own kingdom, according to some sources, Lysimachus had him castrated. Perhaps not surprisingly, Philetaerus revolted and declared his independence, and that of Pergamon, in 282 B.C.
- After 281 B.C., Philetaerus ruled his new kingdom from Pergamon until his death in 263 B.C., establishing the city as a regional power base. His adopted nephew Eumenes I succeeded him, and Eumenes was succeeded, in turn, by Attalus I (r. 241–197 B.C.), from whose name the dynasty gets its designation, the Attalids.

Successor to Athens?

- For the rulers of Pergamon, the natural tendency to overcompensate for insecurity manifested itself in the decision to create a grand city that was, in many ways, designed as the cultural successor of Athens. The designers of Pergamon didn't base the plan for their city directly on Athens, but they created a number of visual and architectural connections that made it clear that they were the cultural inheritors of the great Greek city. In this way, the Attalids established themselves as competitors with the Ptolemies in Alexandria.
- It's hard not to believe that the unknown planner of Pergamon had at least read about Dinocrates of Rhodes and his vision for Mount Athos. Pergamon is, particularly in the upper city, bold, dramatic, and aggressively anti-Hippodamian. That rejection of the Hippodamian extends to both its layout and its underlying ideology.
 - There's nothing democratic or constitutional about Pergamon. The entire upper city, with its military, administrative, leisure, and religious spaces, primarily reflects the personal identity and beliefs of the Attalids. It is based on a series of terraces that seem to have grown out of landscape. The buildings and spaces themselves are grouped in dramatic diagonals on these terraces, not using a Hippodamian plan.
 - The upper city builds on a mastery of siting buildings on terraces, and the complex structure prioritizes interest in the organic whole over a single feature; it could be described as freely articulated urbanistic planning.
- The emphasis on theatricality, great scale and size, drama, approach, and distant view are together intended to evoke a sense of wonder in the viewer. That wonder or a similar emotional response was a key goal of Hellenistic design. We encountered an early example of that at the Pharos, the great lighthouse of Alexandria, which was designed with the same intentions. Here at Pergamon, the entire city was conceived using much the same concept.

- Each building sits alone, sometimes with a colonnade framing it from behind, on a terrace so that it can be viewed from a distance. But the true focus is on the aggregate effect of the entire set of buildings and monuments in the upper city. Hippodamus never attempted to evoke a sense of wonder. In fact, he rejected the idea of modifying his layouts to take the landscape into account. This concept appears to be something new in the Hellenistic period.
- The reliance on Hippodamian planning for the lower city demonstrates the tenacity of this practical form of city planning, even given the application of the dramatic to the public buildings in the upper city. Once again, despite the amazingly steep sides of the ridge, Hippodamian planning was applied without regard for topography.

The Upper City

- Many of the building types in the upper city are familiar from other Greek cities. All of the upper terraces seem to fan out visually from the lines of the theater, which seems appropriate given the emphasis on dramatic presentation found at the site and, indeed, throughout Hellenistic design. We can't say if it was a deliberate reference, but certainly the theater seems to anchor the terraces of the upper city, which are connected to it visually.
- Above the theater, among the monuments and buildings, were various temples, including a temple of Athena and one of Dionysus; royal palaces; shrines to worship the Attalid kings; the upper agora; arsenals; and so on.
 - The temple of Athena was dedicated to Athena Nikephoros (Athena, the Victory Bearer). The name and form of the temple are familiar from the temple of Athena Nike on the Athenian Acropolis. The visual of Athena as a literal bearer of victory may refer to the chryselephantine statue of Athena Parthenos in the Parthenon, which bore a victory figure in her outstretched hand.
 - The multiple, layered, and specific references to two important and influential temples of Athena are typical of

Hellenistic design, which created many works that referred to classical antecedents.

- The great library at Pergamon, also in the upper city, was built to compete with the library at Alexandria and, in fact, quickly became the second-largest library in the Greek world, with reputed holdings of 200,000 books. This number is amazing when we consider that each book had to be copied by hand on papyrus grown in the Egyptian delta.
 - The Ptolemies of Egypt were aware of the risk of losing their cultural supremacy and, for this reason, stopped exporting papyrus for scrolls, thinking that would stop the Pergamenes from copying books.
 - In response, the people of Pergamon invented parchment—treated animal skin—which became the most common material for books throughout the ancient and medieval worlds.

The Great Altar

- Of all of the monuments of the upper city, none is quite as dramatic as the great altar of Pergamon, built from 180 to 150 B.C. The altar doesn't seem to have been dedicated to any god in particular, although it is sometimes referred to as the altar of Zeus. It may have been dedicated to all the Olympian gods and inspired by the Altar of the Twelve Gods in the Athenian agora.
- The altar at Pergamon is surrounded by a wall that defines its sacred precinct and whose exterior base is covered with a single relief frieze. The frieze is about 7.5 feet high and 360 feet long, composed of more than 200 figures. Greek gods above and giants below are locked in a battle called the Gigantomachy. The same subject filled part of the exterior sculpture on the Parthenon.
- The altar is carved in a new Hellenistic style referred to as *Pergamese baroque* that combines dramatic compositions and overblown proportions with almost incredible attention to detail.

- The figures create emotionally exciting groups that evoke pathos from the viewer. Given that the giants are along the bottom of the relief, they are closest to the viewers, who could easily see them in defeat. Some plead for mercy; others suffer from thunderbolts through their thighs or being torn apart by animals.
- The emphasis on the emotional suffering of the giants is unprecedented. Much of the conception seems based on the antecedents of tragedy. It's hard not to think of Aristotle here and his notion that the goal of tragedy was to evoke a catharsis, an emotional cleansing, on the part of the audience. The audience seems to be invited to consider the emotional pain of the conquered and, perhaps, to identify with them.
- Interestingly, the only testimony to the importance of the great altar in antiquity comes from a reference to it in the book of Revelation (2:12–13) as the throne of Satan: “And to the angel of the church in Pergamos write; These things saith he which hath the sharp sword with two edges; I know thy works, and where thou dwellest, even where Satan’s seat is.” This testimony from the 90s A.D. is fascinating given that the forms of the giants on the altar—especially their half human–half animal elements—inspired medieval images of demons.
- Among the most prominent of the Greek gods on the great altar frieze is Athena crowned by Nike (personified Victory). Another prominent figure is Zeus battling giants. The forms of Athena and Zeus on the frieze are based on the pediment figures of those gods on the Parthenon.

Victory Monuments

- Attalus I won a series of battles against the Gauls of northwest Asia Minor. After the final victories in 220 B.C., he created a set of victory monuments that were different in form and placement from anything that had come before: two sets of sculpture groups, one set up at Pergamon and the other at Athens. Both sets were dedicated to Athena Nikephoros, the Victory Bearer.

- These sculptures lack any representation of victors; instead, they consist entirely of figures of the Gallic enemies. They ennoble the defeated with emphasis on their heroism. It's certainly true that in antiquity, people went to pains to celebrate the greatness of their enemies on the theory that the greater one's enemy, the greater the victory. But these sculptures go far beyond anything else ever conceived. They consist entirely of dead and dying Gauls, including one committing suicide following the defeat in battle.



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The victory monuments found at Pergamon are unprecedented, emphasizing the emotional engagement of the viewer with scenes of great pathos.

- The goal of the sculptures is to arouse emotional excitement and empathy in the audience, using rhythm and fluid compositions. The underlying intentions seem to be those of Greek tragedy: They are designed to move the audience rather than to inform or enlighten. The art emphasizes the emotional reaction and engagement of the viewer.
- Pergamon was taken over by Rome in 133 B.C. Its statues of the Gauls, or at least many copies of them, ended up in the city of Rome, where some are to this day. It's only in Rome, not Pergamon, where one can view the famous *Dying Gaul* and the *Suicidal Gaul*. Others from the group are housed in the National Archaeological Museum in Naples.

Suggested Reading

Green, “The New Urban Culture.”

Questions to Consider

1. The emphasis in Pergamon on evoking wonder in city design, buildings, and monuments is unprecedented as far as we know. Do you attribute this to the desire of the Attalids for legitimacy or only an extension of tendencies already present in Hellenistic design?
2. The multiple connections between Pergamon and Athens are hard to miss but hard to fully understand. Do you see them as attempts to position Pergamon as just like Athens, better than Athens, or as Athens’s natural successor in the Greek world?

The Good Life in Rome

Lecture 18

According to the Romans, Rome had been a city since 753 B.C. From its location in the center of Italy and of the Mediterranean, it gradually expanded into an empire that, at the time of Hadrian (r. A.D. 117–138), covered territory stretching from Scotland to Morocco, Israel to parts of Germany. Hadrian was a lover of things Greek; thus, when he added to the city, he continued the Greek influence on the buildings that had been developing since the 1st century B.C. In this lecture, we'll walk through the city with an ordinary Roman at the time of Hadrian, engaging with the programs, spaces, and structures that made life there not just bearable but enjoyable.

Domestic Life

- Thanks to Nero, Rome in A.D. 120 had good building codes. Nero widened streets, required that buildings have fireproof ground floors, eliminated party walls, and ensured that newly constructed buildings were designed to aid firefighting, with balconies built on to them.
- An ordinary inhabitant of Rome might live in an *insula* (Latin: “island”), that is, a freestanding apartment complex, generally three to five stories tall. In fact, building codes limited them to 70 feet in height. These were the first “high-rise” buildings in world history. They had shops on the ground floor and apartments above, housing perhaps 350 people in a building, 6 to 8 in each apartment.
- One prime example of an *insula* was constructed on the west slope of the Capitoline Hill, where its remains can still be seen today. This area was close to all the major public buildings and spaces in the old Forum Romanum and the extensions to it built by successive emperors. This was a clean, safe, modern building, offering multi-room apartments in a desirable location.

Roman Forums

- The old Forum Romanum was a symbolically significant setting. Although many elements of the government had moved out of this cramped space, emperors used it as a stage for acts of political theater that were designed to benefit Roman citizens.
 - For example, Hadrian arranged two events here, one apparently held only once, but the other repeated regularly. The single event was the burning of the tax records as a visible demonstration of the emperor's commitment to forgive the back taxes owed by Roman citizens.
 - The second event, on the same stage, was the *alimenta*—the distribution of grain. This duty fell to the Roman emperors, who acted as patrons of the city at large and ensured free or, at least, affordable grain. The distributions were not intended to be the only supply of food for the poor but to serve as an important supplement to their diets. The distributions were conducted at a number of places around the city, probably organized based on the 14 administrative districts into which Augustus divided the city.
- A five-minute walk north of the Forum Romanum was the Forum of Trajan. Begun by Hadrian's immediate predecessor and completed by Hadrian himself, it was the largest and grandest of the five extensions of the Forum Romanum. In fact, the Forum of Trajan was the largest single public building complex ever built in ancient Rome.
 - Trajan's Forum contained a basilica, a great open piazza punctuated by an equestrian statue of Trajan. This piazza form was the primary organizing principle for Roman public spaces—both civic and religious—from the time of Julius Caesar and Pompey the Great onward.
 - The Romans took the form, notably the open piazza surrounded by a peristyle (a row of columns), from the Greeks but used it more widely.

- Also in the Forum of Trajan was the Atrium Libertatis, where the names of slaves were recorded as citizens upon their manumissions; the Column of Trajan; the Temple of the Deified Trajan, completed by Hadrian around A.D. 120; and two libraries.
 - Libraries in Rome were always built in pairs, one for Latin literature and one for Greek. The first public libraries in Rome were built by Augustus, but additional pairs were constructed by Vespasian and Trajan. As public libraries, they were open to all who could read.
 - Poetry and prose works were shelved separately, not by subject but by genre. Poetry was divided into six categories: comedy, tragedy, epic, elegy, iambics, and melodrama. Prose was shelved by the genres of history, philosophy, medicine, law, and rhetoric.

Markets of Trajan

- Immediately behind the Forum of Trajan was one of the greatest architectural achievements in ancient Rome: the Markets of Trajan.



Many of the commodities that were imported to Rome from the east, such as pepper, were sold in the Markets of Trajan.

Designed by Apollodorus of Damascus and completed in about A.D. 110, this six-story, brick-faced concrete complex contained dozens of small shops and offices.

- Architecturally, the building is a triumph of overcoming obstacles. It was built against a cut in the hill behind it, so that one side is solid rock. Given the lack of reliable artificial light in the Roman world, a multistory complex built against a cliff with no access, light, or air from one side presents enormous challenges, particularly to the lower stories.
- Apollodorus turned to brick-faced concrete, a Roman invention, to create an extraordinary complex of more than 150 individual shops and offices with rounded forms, barrel-vaulted passages, and compound domed spaces supported by piers and lighted by enormous windows. The use of concrete essentially allowed Apollodorus to convert the traditional Roman forms of the arch and vault into larger and more sophisticated structures.
- The central feature of the complex is the main market hall, a vaulted space more than 91 feet long, with two stories of six shops on each level on each side of the hall.
 - Those in the upper story are set back from the line of shops on the lower story and fronted by a corridor with balustraded openings corresponding to the six bays of the central vault. This refinement creates an open space in front of the line of shops, allowing light to pour into both stories of the hall.
 - The vault is not a solid barrel vault but is cross-vaulted, lifting the roof in each bay as an extra refinement to provide light into the space. Piers rather than columns support this utilitarian yet innovative structure, which uses concrete construction to offset the difficulties of the site, creating a multistory interior space of the type previously seen only in imperial palaces.
- Each of the shops (*tabernae*) had an open door surmounted by an open transom, while each end of the ground floor terminated in a

space lighted by great windows under a vaulted roof and a form of skylight to carry the light into the interior spaces, passageways, and stairs. The way in which the upper stories were stepped back from the lower ones enhanced this effect.

Baths of Trajan

- The Markets of Trajan were built into the Quirinal Hill. The next hill to the east was the Esquiline, and it featured another great benefit for the inhabitants of Rome, the Baths of Trajan. These baths were begun in A.D. 104 and constituted the largest of this type of complex built to this time.
- Like earlier imperial baths, the Baths of Trajan consisted of a large central bathing block with symmetrically organized rooms, all within an immense walled enclosure that included formal gardens and exercise grounds. The complex gave green space to the majority of Romans, who lived in small, enclosed apartments.
- The construction was all brick-faced concrete with a variety of roofing systems, including soaring domes, half domes, and barrel and groin vaults, all about 100 feet above the floor. The interior walls up to the base of the vaults were lined with polychrome marble veneers and freestanding granite columns on projecting brackets. Large windows with insulating glass filled the areas just below the roofing to allow light to penetrate the complex.
- Given that Roman *insulae* did not have running water, the baths played an essential role in the hygiene of Roman citizens. The actual bathing in these complexes took place in rooms and baths heated to a variety of temperatures for a full range of sensory experiences. This system relied on a vast, well-working infrastructure of aqueducts and drains, along with massive furnaces to heat the water and the rooms.
 - The per capita running water capacity in Rome at this time was enormous—calculated by some at almost 18 gallons per person per day, not equaled again in a city for 1,700 years.

- Those who experienced these baths could not help but acknowledge that the Roman system worked and that the government directly benefited the bathers, as well as the large number of Romans employed in the construction of the complex.
- In addition to the activities for which the building was designed, a great amount of networking and socializing took place here, as Romans of every level of society came to the baths. In fact, Hadrian himself was known to bathe in the large public baths, just like other Romans, non-Romans, foreigners, and even slaves.
 - According to Roman authors, one of the primary activities in the baths was procuring dinner invitations from one's social superiors. These men were supposed to share their wealth through generosity, and some Romans counted on that custom for meals.
 - At other times, Romans would, as we do, run into friends whom they would invite over to dine after bathing.

An Evening in Rome

- The Roman poet Juvenal, a contemporary of Hadrian's famous for his biting observations of urban life, captures the most positive perspective on the dinner invitation:

But now relinquish care, put business aside, and treat
Yourself to a pleasant interlude, in which you may
Idle the whole day away. There'll be not a mention
Of payments due; ...
Throw off whatever annoys you at my door.

- The notion of a pleasant, leisurely meal with other Romans, held in a *triclinium*, a dining room with couches for nine reclining diners, was the standard formal dinner party in ancient Rome. In addition to multiple courses of food and drink, there would be good conversation and entertainment, perhaps music or a poet reading recent compositions.

- The walk home after the meal, accompanied by slaves from the household bearing torches to light the way, would be relatively trouble-free, thanks to the institution of the *vigiles* (the Roman watch) and the *cohortes urbanae* (the city police force), both paid for by taxes.

Suggested Reading

Aldrete, *Daily Life in the Roman City*.

Connolly and Dodge, *The Ancient City*.

Edwards, *Writing Rome*.

Juvenal, *The Sixteen Satires*.

Laurence and Newsome, eds., *Rome, Ostia, Pompeii*.

Questions to Consider

1. In what ways are the activities and spaces created by Roman emperors designed to benefit the majority of poor Romans? Is the grandeur of the city created to evoke a sense of the particular benefits of being Roman or just to elicit a sense of pride in the city itself?
2. Think how a day in Rome would have been different if one of the urban amenities (running water, a working sewer system, paved roads, food distribution, free public buildings) was not available. Said another way, how did the aggregate urban fabric of Rome work to create a good life for the average citizen?

The Lives of the Poor in Rome

Lecture 19

As we saw in the last lecture, what made city life possible in ancient Rome was its infrastructure. But it's also true that sometimes, infrastructure systems fall apart. In this lecture, we'll look at Rome under Hadrian from the experience of a less fortunate individual, someone for whom the city could be a dangerous place. For the very poor, who made up much of Rome's population, housing was expensive and substandard, and the social safety net that was available to Roman citizens did not include them. The problems of huge numbers of poor and homeless might seem almost inevitable in ancient cities (although we'll see that they weren't), and of course, they still plague many modern cities today.

Daily Life for the Poor

- As the Roman poet Juvenal relates, some people in Rome held strong attitudes against foreigners, particularly those from the east: "For the Syrian Orontes has long since polluted the Tiber, / Bringing its language and customs, pipes and harp-strings." This attack makes it clear that immigration from the eastern Mediterranean was not a new phenomenon but was unwelcome in the cultural changes it brought to Rome.
- Rather than a brick-faced concrete *insula* in the nice part of town, many of the poor in Rome lived in what we would refer to as tenements. That is, overcrowded, dark, dank, dirty, and possibly dangerous buildings on the edge of collapse. As mentioned in the last lecture, there were building codes in Rome, but no one was tasked with enforcing them. Many of the poor lived in wretched conditions, generally on the top floors of tenements because rents dropped with the number of stairs one had to climb.
- Living on the top floor of a tenement had its own special problems, besides the need to walk up six flights to stairs to reach home.

Again, as Juvenal tells us, the buildings were prone to collapse and always at risk of catching on fire.

- It's also true that the homeless population in ancient Rome was huge, and many people slept on the sidewalks, under porticoes, in sanctuaries, or in *insulae* on the stairs, in halls, or even in the latrines wedged in under the staircases on the ground floors of most of these high rises. Without a social safety net, many of these people died of exposure or exhaustion or of one of hundreds of untreated minor illnesses.
- Juvenal tells us that begging was common, and the *alimenta*, the grain disbursements, were for citizens only. Even for citizens of Rome, the grain supplied wasn't enough to live on; it was meant to supplement the diet. And of course, without adequate storage facilities, grain could rot or be eaten or spoiled by vermin.

Dangers of Urban Life

- The five greatest unavoidable dangers of urban life were flood, fire, famine, plague, and earthquake.
- A Roman living in the floodplain or low areas of the city off the Seven Hills had about a 5 percent annual chance of experiencing a major flood. This wasn't a problem for those living on the hills, but that area was primarily high-rent districts. The poor were disproportionately found in the low areas of the city.
 - Floods of the Tiber could be powerful, sweeping away wooden buildings, and could take time to recede, leaving residents homeless or trapped.
 - The nature of Rome's sewers made the situation worse. They were combined storm and sanitary sewers, which meant that when floods carried water across the city, it was contaminated with sewage. Thus, floods generally left behind them at least small-scale famines (because the food supply was contaminated by water, mud, or debris) or minor plagues (because the supply was tainted by flood water mixed with sewage).

- In a world lit only by fire, the threat of uncontrolled fire sweeping through a room, building, or neighborhood was quite real. Fires were a daily occurrence in cities, resulting from cooking, the burning of fuel for heat and light, and industrial processes, such as glassblowing. Once again, the poor often lived upstairs and because fire rises, the upper floors of houses and apartments were usually much more heavily damaged. There was at least a 6 percent annual chance for a major fire that would affect a poor individual living in Rome.
- Widespread famine, plague, and earthquakes were much rarer but not unknown. The emperor Trajan himself almost died in a collapsed building caused by an earthquake. Totaling up the probabilities for these disasters, someone in the floodplain in Rome had a 23 percent chance of being affected by one of these five major dangers each year, while someone living on one of the hills had a 16 percent chance per year.

Employment in Rome

- All the imperial building that took place under Trajan and Hadrian required work, but most of that was performed by skilled workers who owned their own tools; the truly poor didn't qualify for those jobs.
- Employment as a day laborer was available, but that involved most of the low-rung jobs, such as cleaning streets and bath complexes, hauling building materials, and so forth. Such work was often done by slaves. In fact, slave labor probably depressed workers' wages in the same way that unpaid internships reduce salaries for entry-level positions today.
- A poor man might spend his day in the baths, fetching towels in the hopes of cadging a dinner invitation. He might also simply loiter in public places.
- Wealthy Romans living on the edge of the city would sometimes open the gardens on their vast private estates to their fellow



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The number of game boards scratched or cut into stone steps, piazzas, and pavements in Rome suggests that many people had time on their hands during the day.

Romans. Here, a poor Roman might have a chance of running into wealthier citizens and, perhaps, finding employment.

- Others might participate in the *salutatio*, the early-morning greeting ritual, in which poor men who were clients of a wealthy Roman would show up at dawn at their patron's house to greet him formally.

The City at Night

- Night could be a particularly dangerous time for people on their own in the streets of Rome. With no artificial light, much of the city would be completely black.
- For anyone attacked on the street, there was no investigative force to hunt down or charge the perpetrator. The *vigiles* and the *cohortes urbanae* intervened only if they happened to be on the scene.

- Further, prosecution was a private matter and had to be paid for by the victim of crime.

Alternatives for the Poor

- What alternatives were available for the poor? A young man might consider joining the military or becoming a gladiator. Both options were limited to a subset of the male population, but they had benefits: food, shelter, pay, medical care, and discharge benefits, assuming one survived the enlistment period.
 - Enlistments in the army were generally limited to young men, ages 18 to 22. The navy, in contrast, saw enlistments of men into their 40s. It seems to have been a fallback or second career for some men. Although enlistment in the army required 20 years of service for full benefits, for the navy, it required 25. And men in the army, navy, or gladiatorial ranks tended to live an average of 5 years less than civilians.
 - Under Hadrian, gladiators were treated as professionals, trained and cared for, and they generally had short careers, fighting perhaps several times a year at most. Contrary to what you might think, they were expected to survive their bouts.
 - Juvenal describes the choice facing a young man named Rutilus. The final line is poignant, making it clear that many young men were desperate:

Every dinner-party,
 Every bathhouse, square, and theatre is talking of Rutilus.
 While his limbs are young, they say, and strong enough, for
 Him to fight in a helmet, while his blood still burns hotly
 He's about to sign up to the code of the gladiatorial school,
 With its royal decrees, free of the tribune's pressure or veto.
 You can find plenty like him, whose only reason for living
 Is to satisfy their palate.

- Women didn't have even those limited options. For them, there was employment, marriage, or prostitution. The latter two of those options were usually only available for young women, and for marriage, generally only if they had some money for a dowry. Employment had its own problems. Bars and taverns provided one of the largest categories of jobs for poor women, but as employees, they had virtually no legal protections, including no protection against rape.

Suggested Reading

Aldrete, *Daily Life in the Roman City*.

Edwards, *Writing Rome*.

Juvenal, *The Sixteen Satires*.

Laurence and Newsome, eds., *Rome, Ostia, Pompeii*.

Scobie, "Slums, Sanitation and Morality in the Roman World."

Questions to Consider

1. How do modern responses to disasters, such as fire, flood, or earthquake, make life in a modern city different from life in ancient Rome?
2. What were the employment options available to a poor non-Roman citizen? What were the limitations of each option in terms of qualifications, job conditions, or availability?

Ostia—Middle-Class Harbor Town

Lecture 20

Ostia is a separate city from Rome, yet its identity has always been based on its relationship to the capital. As Rome's first colony, founded in 338 B.C., it was placed at the mouth of the Tiber River, initially to protect Rome from attacks coming up the river. But it also supplied the city as a basis for trade. Around A.D. 120, it still supplied Rome with the bulk commodities needed by a city of more than 1 million inhabitants. With a population of 50,000, Ostia was, in some ways, less a separate city than an extension of Rome, but it preserves a distinct subculture that sets it apart, particularly in its communities of working-class and middle-class people.

Construction of Ostia

- Its position near the mouth of the Tiber River meant that Ostia existed for trade—mainly for trade coming into Rome, although the great cargo ships that supplied Rome moved both in and out of port, with smaller boats making round trips up and down the Tiber.
- Ostia suffered a great fire in A.D. 115, in which about 100,000 square feet of the city burned.
 - Rather than rebuild it as it was, Hadrian took charge of much of the rebuilding and, as a first step, brought in 100,000 cubic yards of fill. This fill was packed on the rubble of the existing city so that the new city was built a yard higher than the old to lessen the effects of flooding.
 - In addition, the new buildings were of brick-faced concrete to reduce the chance of fire.

Dominance of Shipping

- The shipping industry physically dominated the city. Of course, shipping took up large areas of land along the coast and the river bank, but massive warehouses, offices, and storage facilities for foods and bulk commodities were also located throughout Ostia.

- Many of the imported commodities, such as oil and grain, are dangerous to store in large amounts if improperly handled and often caused fires in ancient cities.
- Some of the facilities were not buildings but large lots exploited for the storage of wine or olive oil. These liquids were kept in massive terra-cotta vessels about 6 feet tall and holding 300 to 400 gallons. They were buried up to their rims to provide a form of temperature control.
- In terms of sheer size, the grain warehouses are the largest facilities of the shipping industry in Ostia. They often take up entire city blocks, with brick-faced concrete structures two to three stories tall. One of these in particular at Ostia has a formal entrance and the names of the owners over the door on a marble plaque. The interior has a black-and-white mosaic floor and small shrines.
- In addition to the physical dominance of the shipping industry, its importance was seen in other ways. Unlike at Rome, where buildings were dedicated by the wealthy elites and inscriptions frequently name emperors or senators, at Ostia, dedications were made by professional organizations of workers, and the plaques name shippers and warehouse workers.
 - For example, shipbuilders, grain measurers, and even the men whose job was to dive into the harbor and collect goods lost during unloading had professional organizations, and all of these groups gave back to the city.
 - This was all driven by the import-export business, which also supported the approximately 10 percent of the working population in construction at this time.
- In any community, we can gain a sense of how it defines itself by its largest buildings. These sometimes represent the industries that employ the most people, but we can also tell what a community values by examining how its public space is used.

- One of the standard entertainment buildings in a Roman city was a theater. These were almost invariably constructed with an attached quadraporticus, a four-sided portico surrounding a rectangular piazza that was considered an integral part of the theater complex. The porticos were used by theatergoers as places for shade and to stretch their legs between plays. Food and drink were also sold there.
- At Pompeii, after a major earthquake, the quadraporticus on the theater was walled off and turned over to the local gladiatorial school, a key element in community identity and a clear example of what the Pompeians valued by turning valuable civic space over to its use.
- At Ostia, the theater portico was turned over to the use of the businesses that were engaged in import and export. It became their headquarters, and each of the shipping groups from a different city had its own small room around the edge of the piazza under the porticos in spaces that were originally shops.
- Bold and clear black-and-white floor mosaics that show simple images related to shipping, such as a lighthouse, ship, grain measure, and so forth, mark most of these headquarters. A few incorporate the names of the cities that traded with Ostia.

Housing and Public Spaces

- The major housing stock at Ostia was the kind of apartment found in the large three- to four-story brick apartment buildings or *insulae* in Rome. Unlike Rome, however, there were neither tenements nor palaces. The housing was good—neither spectacular nor wretched—and seems designed for the working lower and middle classes. There is no evidence of the desperately poor in Ostia.
- Where were the poor? It may be that they were in Rome, where there were benefactors, such as the emperor and wealthy elites; *alimenta*; and a chance for survival from beneficence. Or perhaps the booming trade, commerce, and construction in Ostia meant that more people here worked more regularly.



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The inhabitants of the Garden Houses at Ostia would have been fairly well off but not as wealthy as the elites in Rome.

- This is an intriguing and important question for cities. Does Ostia represent a city that eliminated poverty through full employment? Or does it represent a city that had full employment because the desperately poor found themselves better off somewhere else?
- We can't neglect the power of the professional organizations here either. It's likely that these unions kept wages high enough and protected their workers well enough that jobs were not taken by slave or nonunion labor.
- The ground floors of the *insula* buildings had shops that faced the street. The upper floors were apartments of various sizes, becoming progressively smaller on the upper stories. Most of the buildings had a central courtyard that provided light and air to the rooms in the upper stories. Some of the courtyards had marble fountains or other attractive features. Many of the apartments were lavishly

decorated with wall paintings, and some of the upper stories had balconies on the outside and large windows on the interior.

- An interesting variation on the *insula* is the complex known as the Garden Houses at Ostia. These four-story-tall central buildings were ringed by a garden with another line of buildings around the edge of the property. The entire complex looked like a large *insula* from the street but had a great deal more open space inside. It's believed that about 1,200 people lived in these dwellings.
 - The central buildings had eight apartments per floor, each apartment with an average of 2,368 square feet of space. They were plumbed for running water, and the gardens featured large fountains.
 - The economics of such buildings make it likely that these were not apartments rented to families by a landlord but, essentially, condominiums—individually owned units in the larger complex.
- Ostia had a nice bath complex next to the forum that was paid for by the emperor. It was grand in scale and decoration and even included a large marble-seated public latrine. The other baths in town were probably neighborhood baths financed by professional organizations. The Baths of the Mule Drivers, for example, features a mosaic floor with sea creatures and swimmers, along with hard-working mule drivers and their carts.
- As at Rome and Pompeii, Ostia had many *popinae*, small wine and snack shops. These were found on the ground floors of *insulae*, often on the corners, and were popular places for Romans to have a drink or a small meal. People could eat or drink either standing at a counter or seated at a table, often in an interior or adjacent room. *Popinae* of various sizes and styles were found scattered throughout the city, sometimes across the street from each other, apparently competing for business.

Religion in Ostia

- The Romans had a long tradition of cultural inclusiveness, especially in the area of religion. As the major harbor for the capital, many foreigners and foreign ideas came through Ostia, which meant it had the usual pagan deities, as well as foreign ones.
 - For example, we find evidence of Hercules, Ceres (the goddess of grain), and the Capitoline Triad (Jupiter, Juno, and Minerva), along with such foreign deities as Magna Mater; Attis, who was the consort of Cybele; Isis; and Serapis.
 - Indeed, a sanctuary to Serapis was created in Ostia in A.D. 123. The connections between Alexandria and Ostia and the protections Serapis was believed to give to the grain fleet made a sanctuary to him a natural choice.
- One of the most widespread of the foreign cults was the worship of Mithras, the god of light. This cosmological deity with roots in Persia was worshipped at Ostia in the 18 underground Mithraea found so far. In addition, another 100 monuments, perhaps to Mithras, have been discovered in excavations. This male-only congregational cult seems to have been particularly popular at Ostia.
- From at least the middle of the 1st century, there was also a synagogue at Ostia. This small structure included a kitchen, study room, vestibule, courtyard with a shallow basin for ritual purification, the synagogue itself, and a shrine of the Torah. On one of the brackets for the Torah shrine, a menorah and shofar can still be seen among the decorations.
 - Interestingly, although the synagogue was placed outside the walls of the city near the sea, the names of all those who made dedications were Latin.
 - The Jews at Ostia seem to have taken Latin names while preserving their religious identity in this synagogue.
- Although we don't usually think of it as such, Christianity was for centuries seen as an Eastern religion by the Romans. There is

ample evidence of Christianity at Ostia beginning in the 3rd century, although most of the remains are from the 4th or 5th century. Prior to the 4th century and the conversion of the emperor Constantine, Christianity was practiced in homes; so far, none of the structures of the 2nd century preserves evidence of it.

Suggested Reading

Aldrete, *Daily Life in the Roman City*.

De la Bedoyere, *Cities of Roman Italy*.

Laurence and Newsome, eds., *Rome, Ostia, Pompeii*.

Meiggs, *Roman Ostia*.

Questions to Consider

1. How does Ostia provide lessons in the debate about the relationship among poverty, employment, and public assistance in the ancient world that might inform this same debate today?
2. How is the working- and middle-class nature of Ostia present in the large buildings in the community and the patronage that paid for amenities?

Timgad—More Roman Than Rome

Lecture 21

In the previous lecture, we saw that Ostia, although one of the first Roman colonies and one of the closest to Rome, developed a culture that differed in some clear ways from the city of Rome itself, socially, religiously, and economically. In this lecture, we will examine the Roman colony at Timgad, the development of which reveals that as of the 2nd century A.D., the Roman pattern of urbanization was still spreading and still successful. Timgad shows a Roman city on the edge of Roman territory that was remarkably, even aggressively Roman in design and culture. Laid out as an ideal form of Rome itself, Timgad attests to how eagerly the local inhabitants adopted every aspect of Roman design.

Roman Colonization

- Timgad (originally, Colonia Marciana Ulpia Traiana Thamugadi) was a Roman colony on the edge of the Aurès Mountains in modern Algeria. The city was excavated beginning in the late 19th century, by which time the sands of the desert had covered and preserved the bottom three feet of walls, as well as the paved streets, colonnaded sidewalks, forum, and mosaic floors.
- Roman colonization was a product of the desire to occupy disputed or dangerous territory and of the patterns of Roman military discharge. Once a unit served and was discharged, its members would receive a cash bonus, citizenship, and land. That grant of land was given in the form of a colony. The unit veterans were all settled together in colonies, often in frontier zones where they could also serve as a buffer between Roman and barbarian territory. Thus, even in retirement, they served Rome by providing a military presence in disputed areas.
- Timgad was founded by the emperor Trajan in A.D. 100 as a military colony to settle 900 Parthian veterans as a part of their discharge benefits and as a bulwark against raids of rich Roman territory or of

travelers along the road that led to the coast. Raids typically came from the tribes in the interior from across the mountains; for this reason, Timgad was built spanning a road leading to one of the major passes.

- The veterans of Timgad, many of whom were recent recipients of full Roman citizenship upon their discharge, acted in ways that show just how much they valued that citizenship and the link they had to Rome. In many ways, they seemed to conduct their lives in a manner that was more Roman than the people in Rome. On the frontier, “Romanness” was not something that was taken for granted; it provided a sense of security and belonging to the wider Roman world, in contrast to surrounding barbarian cultures.

Layout of Timgad

- Timgad is the best-preserved example of Roman city planning that survives from anywhere in the Roman world. Unlike other colonies, such as Pompeii, it was not founded on a previous city but laid out on unoccupied ground. As such, it represents the ideal of Roman city planning, reflecting what the Romans would have built in Rome had they planned it rather than occupying it.
 - Scholars of urban planning debate whether Timgad was designed based on a civilian or a military plan, that is, whether it more closely resembles an army camp than a city.
 - In both forms of planning, there is a common design aesthetic—reliance on axiality and symmetry, crucial public areas at the center, formalized entrances, and so on. Both reflect the Roman prioritizing of order and structure and the centrality of authority in the community.
- The city was laid out not just with a grid plan but in a great square, 1,154 feet on a side. The major roads, the *Cardo Maximus* and *Decumanus Maximus*, divide this square into quarters. The quarters are subdivided into blocks, with the entire city measuring 12 blocks by 11.

- The Cardo is 585 feet long and 16 feet wide and lined with colonnades. These served to set this major road apart from those that flank it, emphasizing its importance.
- The Cardo terminates at the forum, which measured 160 feet by 140 feet and was part of a cluster of public buildings, including shops, a basilica, the curia (local council chambers), and a public latrine that sat 24.
- The Decumanus ran the length of the city from edge to edge.
- The small blocks of Timgad meant that the colony was compact and designed to be walkable.
 - Modern urban planners expect that people will not regularly walk more than 1,300 feet for some amenity, such as a park. Interestingly, Timgad is just under that threshold. It seems that the Romans designed it so that all of the city's amenities were accessible by foot from virtually anywhere in the city.
 - In addition, Roman traffic laws were designed to reduce congestion and noise; no heavy wagons were allowed on city streets during the day and were fully restricted from some areas altogether. Timgad seems to have been thoughtfully designed as a pedestrian city.

Growth of the Village

- Within 100 years, Timgad appears to have doubled or even tripled in population and to have grown substantially in size. The west gate was removed, and a great deal of construction took place along the roads approaching the city, as well as in the suburban areas immediately outside the city walls.
- This new construction did not conform to the orthogonal plan of the city; instead, it was more organic, spreading along the roads or oriented to match the local topography, resulting in buildings set in a variety of directions.

- This abandonment of the original orthogonal planning might lead us to conclude that the people moving here were less Roman, but that's not the case. If anything, they were more Roman than the original inhabitants. The new arrivals were trying to buy into the Roman system that they saw working so well for others.
 - A superb example here is Marcus Plotius Faustus, known by his nickname, Sertius. He owned and lived in one of the new suburban houses on the edge of town. He seems to have made his money in property and was not a member of the hereditary aristocracy.
 - To secure his status in the community, Sertius made a series of large public dedications, taking care to have his name inscribed on each as the donor. He paid for the new western market and for the massive Capitolium complex, two forms of urban beneficence that are exactly as we would see in Rome. Sertius is a textbook example of how Romans acquired and retained social status in a city.

Religious Identity in Timgad

- Timgad's architecture and inscriptions reveal some interesting facts about the religious identity of its residents. The largest religious complex ever discovered in North Africa was excavated at Timgad, attesting to the worship of Serapis, a Greco-Roman god of grain; Asclepius, the god of healing; and Dea Africa, a figure who personified the province.
- Two statues were dedicated to Victoria Parthica, the personification of victory in Parthia, the successful war in which the unit that settled in Timgad fought prior to discharge. Other dedications were made to emperors and empresses; to Silvanus, a god of woods and fields; and to Bacchus, Hercules, Saturn, and others.
- Timgad's Capitolium, a temple for the worship of the Capitoline Triad of Jupiter, Juno, and Minerva, was paid for by Sertius.

- It was constructed outside the city, not at the head of the forum, where we find it in previous Roman colonies, such as Ostia, Cumae, Pompeii, and Paestum, to name but a few. At Timgad, its position better reflects that of the original in Rome on a high point outside the forum.
- The temple's sanctuary for the worship of the Capitoline Triad was larger than the area of Timgad's forum itself. The temple podium was tall, requiring 28 steps, and its columns were originally 45 feet high.
- Almost all of the mystery religions and foreign cults seen at Ostia are missing from Timgad, with the exception of Serapis. The form and subjects of worship were, to borrow a phrase from the archaeologist John Ward-Perkins, "aggressively Roman."

Public Buildings and Distribution

- The original public buildings inside the colony cluster in the center at the crossing of the *Cardo* and *Decumanus* and spread out along those two roads. The exceptions to this rule were the bath complexes, which were scattered into the various blocks as neighborhood facilities. Again, the planners considered the pedestrian nature of the community in this regard.
- When the Romans founded a colony, they were imposing Roman culture onto an area and on a new community. The public buildings, notably the theater at Timgad, make that point.
 - The theater sat 3,500 people in three tiers, almost exactly the population of the original city.
 - The lowest tier, near the stage, consisted of three rows, not of seats but of low platforms on which the elite would sit in formal chairs. A balustrade separated them physically from the second tier of seats for the middle class, and another balustrade separated those seats from the upper tier for the lowest class.



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The sculptures on the Arch of Trajan in Timgad, Mars and Concordia, establish the Roman notions of ideal relationships within and outside the community.

- In addition to the theater, Timgad had 14 bath complexes in total—an extraordinarily large number. By contrast, we know of 9 large baths found at contemporary Ostia, with its population of about 50,000.
 - The baths at Timgad included the Large Northern Baths, a 40-room complex whose size and design seem directly based on the large imperial baths in Rome, with its symmetrically arranged pairs of rooms.
 - Another one of these baths, in the northwest corner of the city, was the meeting place of the Philadelphi, the society of brotherly love, many of whose members gave back to the city with public monuments. One such member was Publius Flavius Pudens Pomponianus, known to his friends as Vocontius, who dedicated a series of statues to the city.

- The public library along the Cardo provides additional evidence of Roman culture. Paid for by another wealthy local, the library was one of the largest public buildings in the city. It has been calculated that it held 3,000 scrolls, making it comparable to one of the libraries in the contemporary Forum of Trajan.
- The Arch of Trajan in Timgad is a triple-passage arch that is, in size and proportions, close to his arch at Beneventum in central Italy and almost identical to the later Arch of Septimius Severus in the Forum at Rome. It's a purely Roman building form decorated with Roman sculpture, including statues of Mars, the god of war, and Concordia, the personification of harmony between the Roman classes.

Suggested Reading

Fentress, "Frontier Culture and Politics at Timgad."

Nevett, *Domestic Space in Classical Antiquity*.

Questions to Consider

1. In what ways does Timgad differ culturally from the city of Rome and, especially, from its close colony at Ostia? How do you account for these changes—location, date, ethnic makeup of the inhabitants?
2. Timgad is arguably the finest surviving example of an ideal Roman city. What qualities does it possess in layout, organization, buildings, or decorations that reflect the ideals of Rome?

Karanis—On the Fringes of the Empire

Lecture 22

In this lecture, we examine a city, Karanis, in which the inhabitants took a cultural path antithetical to that seen at Timgad. This agricultural community of 2,000 to 3,000 people in the fertile region of Egypt exemplifies the cultural and urban diversity of the Roman Empire, even in its most rural and apparently obscure areas. A mixed population of Roman veterans, descendants of Hellenistic Greek occupiers, and local Egyptians illustrates daily urban life in the farm belt of ancient Egypt, the breadbasket of the Roman world in A.D. 300. Thanks to scores of documents and a wide range of domestic objects excavated from the site, the lives and even names of the city's inhabitants are known to us.

Background on Karanis

- The city of Karanis (modern Kom Aushim) is 50 miles southwest of Cairo in the Fayum area of Egypt, fertile agricultural land that has been farmed since the time of the pharaohs.
 - The city itself was founded in the 3rd century B.C. under the Ptolemies; however, nothing from that period remains. It was refounded under Augustus, who settled military veterans there in a colony and restored the productivity of the land by renewing the critical irrigation systems.
 - The community enjoyed modest prosperity until the end of the 3rd century A.D., when its gradual abandonment began, leading to its reclamation by the desert by the 5th century, after 800 years of occupation.
- We know so much about Karanis thanks to the efforts of Francis Kelsey, a professor of Latin at the University of Michigan with a passion for archaeology. Kelsey set out to dig a city so that he could explore the lives of common people. In the 1920s, this was an extraordinary decision for a number of reasons.

- First, Egyptology had at that time a 100-year history of exploration and the exclusive quest for objects of value—those that could be sold to museums or collectors. In the area of Karanis, that meant papyri of the types we discussed from Deir el-Medina.
- Second, all that collecting effort was focused on material from the age of the pharaohs. The later Greco-Roman layers were dug through hurriedly and with great destruction to reach the lower pharaonic material. Kelsey rejected both of these goals in favor of searching for information, not objects, and on the Greco-Roman period, not the pharaonic.
- Although Karanis had been mined by local farmers for the mud brick used to build most of its structures, much of it was still untouched. Thanks to the dry climate, much of the organic material, such as building timber, tools, bowls, wicker work, shoes, papyri, rope, and leather, was preserved, enabling us to study the lives of common people in this community.
- In layout, the town consisted of two main avenues running north-south with irregular cross streets and hundreds of houses in irregular groups, none of them orthogonally planned.

Temples at Karanis

- Just as the religious spaces and dedications at Timgad demonstrated the relentless Romanitas of that community, the temples at Karanis give a clear indication of the population's integration of three cultures: Egyptian, Greek, and Roman. There were two major temples in the city, called by the excavators the North Temple and the South Temple.
- The North Temple dates from the Roman period but is purely Egyptian in design, with no Greek or Roman elements. Although built by and for this Roman colony, it doesn't project the sort of Romanness seen at Timgad with its colossal Capitulum.

- The South Temple, in contrast, has a longer history. It was first built in the late 1st century B.C., at the very beginning of the Augustan colonial foundation. In the later 1st century A.D., a traditional Roman temple was built over the old one.
 - The temple, however, was dedicated to the local Egyptian crocodile gods, Pnephros and Petesouchos. The dedicatory inscription above the door of this Roman-style temple dedicated to Egyptian gods is in Greek.
 - The irregularly carved letters credit the temple to the emperor Nero, but this is certainly a politically motivated fiction. It seems unlikely that Nero actually paid for the temple, but its construction may date to 66/67 during Nero's trip to Greece, which many Greek communities commemorated in various ways.
 - Nero's name was erased and replaced with that of his uncle and predecessor, Claudius, after Nero's death in 68.
- Twenty-seven different Greek, Roman, and Egyptian deities were worshipped at Karanis, although most are known only from small statuettes or idols found in the sanctuaries and in houses across the site. Many houses contained niches for small statues, probably household shrines. These represent a long tradition of personal religion of the type seen as early as Çatalhöyük and in the Egyptian cities of Kahun, Deir el-Medina, and Amarna.

A Farming Community

- The vast majority of the people in Karanis were farmers, and the second largest industry was textiles. There were also carpenters, potters, a doctor, a professional hairdresser, and a flautist, who probably performed at religious ceremonies for a fee.
- The farmers grew a number of crops, including wheat and other grains; pulses; grapes; radishes; and tree fruits and nuts, such as dates, figs, peaches, pistachios, walnuts, and olives. Wheat was the

most important of these crops, both for the townspeople and for export. In the late Roman world of A.D. 300, taxes were paid in kind; thus, the major tax paid by the people of Karanis was in grain.

- Thanks to documents from Karanis, we know some details about how this farm-based economy worked.
 - The transport of tax grain from Karanis to Alexandria was administered by local officials on behalf of the imperial government. By A.D. 300, there was a vast bureaucracy to keep track of all the taxes in kind. Along with the tax grain, farmers paid supplementary amounts as additional tax, all of which were recorded by officials.
 - At Alexandria the grain was stored in granaries to await shipment to Rome. The grain fleet, typically sailing in the spring, made the hazardous journey to Italy, some 1,700 miles away, in one or two months.

Houses in Karanis

- The houses at Karanis were of a type found across the Middle East and North Africa. Made of mud brick, they consisted of three rooms built around a courtyard, altogether making a walled compound of perhaps two or three stories with a flat roof.
- Houses shared party walls of a type familiar from as far back as Deir el-Medina. Here also, the only windows were high in the walls for security. Some houses also had stone steps, stone lintels, and small gardens, and many were equipped with animal pens for livestock. Evidence was found of horses, mules, cows, sheep, pigs, dogs, gazelles, camels, and donkeys raised in the city. At least some houses also had cellars, probably for storing commodities that needed to be kept cool.
- Most of the houses belonged to farmers, but the craftsmen and a few other professionals used their houses in ways that make it clear they were considered economic units, as well as domestic spaces. In the excavation of one mud-brick house with a stone entrance,

26,000 coins in jars and cloth bags were found. The house belonged to the local banker. Having no bank, nor apparently even room in the temple (the usual alternative), he buried the money under his house.

- Not surprisingly, people decorated their homes as much as their means allowed. We don't find mosaic floors or marble revetments as in Roman houses in other cities, but frequently, interior walls were plastered and painted, sometimes with scenes of nature. Woven mats and, possibly, cushions covered parts of the floors, and furniture included wooden stools, tables, and beds.
- Although Karanis is characterized by some scholars as a *producer city* (feeding the *consumer city* of Rome), the flow of objects and culture went both ways.
 - A few imported or luxury goods were found at Karanis, including ceramic tableware, jewelry, sculpture, ivory combs, ebony, pearls, fine fabrics, and inlaid boxes.
 - Roman coins, some found in large numbers, and a full Roman bath complex also argue for cultural connections with the wider Roman world.
 - In addition, the city was connected in terms of disease. There is tragic evidence of trends found in the wider world in the decline of population after A.D. 165, the year the great Antonine Plague swept the Roman Empire, killing a third of its population.

Details of Daily Life

- The Roman-period papyri discovered at Karanis provide some interesting details on daily life and Roman administration in the provinces.
 - From them, we learn of some of the universal conditions of urban life, including such crimes as assaults, thefts, burglary, and vandalism. There are also civil cases, such as land disputes and estates to be settled.

- One example of a papyrus comes from a roll originally about 100 feet long, of which about 6,500 lines are preserved. Those lines represent about a year of tax collection at Karanis. The papyrus shows the payments taxpayers in the village of Karanis made for various taxes, including poll and land taxes.
- Karanis exemplifies life off the beaten path in the Roman world. It gives us a view of the lives of common people and of the culture of a small agricultural city away from the Roman centers of power yet linked to them through its precious commodities, trade, and Roman culture, from the calendar to names to religion.
 - The inhabitants of Karanis seem to have created what might be considered layered identities. They worshipped the traditional Egyptian gods but did so in a Roman-style temple probably built to honor a Roman emperor.
 - The people at Karanis seem to represent the deliberate limits of Roman influence and culture at the outer reaches of the empire, yet they were still dependent on Rome and the regional capitals that kept the empire functioning in the 4th century A.D.

Suggested Reading

Alston, *Soldier and Society in Roman Egypt*.

———, *The City in Roman and Byzantine Egypt*.

Gazda, ed., *Karanis, An Egyptian Town in Roman Times*.

Minnen, “House-to-House Enquiries.”

———, “Deserted Villages.”

Questions to Consider

1. Think about ways that Karanis represents continuities from the older Egyptian cities we've already examined. How does the form of life of its people match the lives of the pharaonic communities at Kahun and Deir el-Medina?
2. In what ways would you imagine that the people of Karanis were integrated into the wider Roman world? As a thought experiment, can you picture them living in a city in another part of the empire? How well would they fit in?

Constantinople—The Last Ancient City

Lecture 23

Constantinople serves as a bridge between the cities of the ancient world and those of the medieval period. Its late Roman design became the model for medieval cities, from its massive walls, constructed under Constantine and Theodosius, to the prominence of its churches. After discussing its design and founding, we'll look at the city as it existed in the 6th century under the dynamic emperor Justinian, when the population reached 500,000. In addition to issues of size, longevity, and location, the design of the city distinguishes it as a deliberate imperial capital with similarities to capitals of modern times.

Founding and Expansion of Constantinople

- By the 4th century A.D., it was clear that Rome was not conveniently located as an imperial capital. Too far from the sea, from the major population and economic centers of the empire, and from the frontiers, Rome had largely become a symbolic capital rather than a center of government by the time Constantine came to power in A.D. 306.
- Constantine was the first Christian emperor, but despite what many believe, he did not make Christianity Rome's state religion. He legalized Christianity and gave it certain financial protections and support. His sincere Christian belief was probably not a factor in the decision to found a new capital, but it was a significant factor in the monuments built there.
- The city of Constantinopolis—referred to as Constantinople in more recent times—was founded by Constantine in A.D. 330. Constantine was responsible for the initial placement and layout of the city and its monuments. Like Rome, this new capital was founded on a site with seven hills, showing the importance of that symbolic continuity. Constantine died in 337, however, before the city could be completed.

- Constantinople was expanded under Theodosius I (r. 379–395), who constructed many of the buildings in its grand public spaces. He also made Christianity the official religion of the empire and promoted the further movement of people and government functions to the new capital. In addition, he shifted official Roman policy against pagan temples.
 - Theodosius, it can be argued, established the precedent for medieval kingship through his legal, military, and monumental actions.
 - His image, seated under a canopy at the top center of relief panels, was the model for medieval kings, while Constantinople became the great bastion of Western civilization for the next 1,000 years.

City Walls

- The site of Constantinople was selected based on a number of advantages. It was close enough to supervise the rich eastern provinces and to intervene against invasions from across the Danube or through Asia; it guarded the vital trade route that connected the Mediterranean and the Black Sea; and it spanned a major regional crossroads. The city was also easily defensible, built on a triangular peninsula with very poor access from the sea. In addition, one of Constantine's first acts was to erect a major set of walls surrounding the city.
- City walls are often viewed as signs of strength and security when, in fact, they reflect just the opposite. Rome's walls were built around 380 B.C. but were obsolete after about 200 B.C. because of its powerful army. Rome received its second set of walls in the A.D. 270s, indicating the insecurity of the times.
- Constantinople's walls defended the city from the 4th to the 15th centuries with only two breaches, in 1204 and 1453. The walls are arguably responsible not just for the preservation of the city but for the preservation of Christianity in Europe, holding off the Ottoman forces for so long that the Christians were able to rally and finally

check the Ottoman advance. In the process, the walls became one of the defining monuments of the city.

- Constantine's walls no longer exist in any recognizable form, but the second set of walls, built under Theodosius II (r. 408–450), are intact in large areas. They included a double wall that cut off the peninsula from the land beyond it. This wall was about 3.6 miles long and made a formidable boundary; the outer wall was about 29 feet high, and the inner wall was about 39 feet, with as many as 96 towers throughout its circuit.
- To strengthen the fortifications even further, a fortress was built across the Bosphorus, and a heavy chain, perhaps 2,275 feet long, was stretched between the city and the fort in order to block ships from moving through the deep natural harbor of the Golden Horn.

The City as a Reflection of Government

- Today, of course, defensive walls are no longer defining aspects of major centers of power. Washington DC, for example, has no walls because it is protected by projected power. But we can find many similarities between Constantinople and Washington in the way both cities present the power and authority of the governments they were designed to house.
- Like Constantinople, Washington was built, rather self-consciously, as a capital city designed to refer to the past culturally and to the future politically. Washington uses traditional Roman forms to strengthen the authority of the institutions housed within its buildings. In a similar way, as the structure of a new capital, the buildings of Constantinople reflected the needs of the government and the beliefs of its founder, Constantine.
- For example, many pagan statues and monuments were brought from around the empire to decorate the city, illustrating Constantine's need to project cultural continuity. The most well-documented example here is the Baths of Zeuxippus, adjacent to the Great Palace.

- The baths were built about 100 years earlier, but under Constantine, they were decorated with a large group of more than 80 statues. The group included a range of great Greek and Roman thinkers and authors, such as Homer, Hesiod, Plato, Aristotle, and Vergil, among others. Other displays of pagan gods and mythological heroes were established in the complex, as well.
- It has been argued that placing these figures in the baths was a means of demoting them and, thereby, symbolically desanctifying the pagan gods. This pattern of bath décor, however, follows that found in many earlier public bath complexes with no intended denigration.
- It seems certain that Constantine took great pagan works from around the empire and moved them here to decorate the capital in a way that demonstrated its cultural significance and its acceptance of the cultural legacy of pagan antiquity.
- The city also had a large circular forum and a long, broad, colonnaded main street of the type seen in many eastern cities. This main street terminated at the major palace complex, alongside which were built large baths, a basilica, gardens, and an enormous hippodrome.
- Constantinople, however, was a Christian capital in many significant ways. In addition to a massive palace and government infrastructure, Constantine founded great churches—Hagia Sophia (“Holy Wisdom”) and Hagia Eirene (“Holy Peace”)—in the ceremonial and governmental center of the city.

The Hippodrome

- In terms of square footage, as well as symbolic importance, the Hippodrome adjacent to the palace was the most important of the public buildings in Constantinople. All the major spectacle entertainments occurred in the Hippodrome, and emperors personally oversaw the most noteworthy, using these occasions to

appeal to the crowd of at least 80,000 people. The major event in the venue was chariot racing.

- The long central spina that divided the two halves of the track and the racetrack itself was lined with statues and monuments from across the empire. The monuments on the spina give us a sense of the place of the Hippodrome in the city and its role in providing a connection between emperors and successful charioteers.

- In the 6th century, seven statues were erected on the spina in honor of Porphyrius, the greatest charioteer of his time, who raced for two of the most well-known chariot teams, the Greens and Blues. The bases of two of these statues have survived and are notable for their large scale.

- These monuments celebrate a great athlete in a space shared with monuments to the emperors, specifically marble reliefs of Theodosius with a similar composition.



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An obelisk was brought to the Hippodrome in Constantinople from Egypt, continuing a pattern begun by Augustus in Rome, as a way of showing control over that ancient land.

- The reign of the emperor Justinian was arguably the final phase of construction in the city in antiquity. Justinian (r. 527–565) undertook a great building program but was also responsible for the greatest

loss of life in the city before its fall in 1453. This took place during the Nika riots in A.D. 532, which escalated from a demonstration in the Hippodrome. Justinian called in the army to suppress the riots, and soldiers killed 30,000 people in the Hippodrome and an unknown number elsewhere in the city.

Hagia Sophia

- By far the most innovative and important of Justinian's building efforts was the rebuilding of the previous Hagia Sophia, which had been destroyed in the Nika riots.
- Built between 532 and 537, the Hagia Sophia was designed by two Greek scientists. It was severely damaged by earthquakes in the 550s and rebuilt in its current form in time to be rededicated in 562.
- The dome is considered the greatest work of Byzantine architecture, using a ribbed dome design about 107 feet in diameter. By comparison, the Pantheon in Rome is just over 140 feet in diameter. Hagia Sophia is much taller than the Pantheon, however, and is a larger building, consisting of the central dome and a series of surrounding half domes, each of which also has a set of half domes below it. The entire structure rises about 182 feet from the floor to the central full dome.

Continuing Influence of Constantinople

- Despite the revolutionary religious identity of the new Roman capital, it's worth reminding ourselves that the people of the 4th to the 6th centuries living in Constantinople had far more in common with the ancient pagan Greeks and Romans than they did with people of medieval or modern times. Although gladiatorial combat was outlawed, animal hunts were the second-most popular spectacle in the Hippodrome after chariot racing. Big cats, particularly those from lands that threatened to invade the Roman Empire, such as the Persian and Parthian empires, were a particular favorite for spectacular death.

- Still, the city of Constantinople became the model for the medieval city, just as its rulers became the models for medieval monarchs.
- Constantinople itself was taken in A.D. 1453, marking the end of the Roman Empire but not the end of the city. As Istanbul, it still stands today, demonstrating the longevity of a well-founded, designed, and constructed city.

Suggested Reading

Gates, *Ancient Cities*.

Tomlinson, *From Mycenae to Constantinople*.

Turnbull, *The Walls of Constantinople, AD 324–1453*.

Questions to Consider

1. How do the buildings and spaces constructed and decorated under Constantine at Constantinople both reflect traditional Roman cultural values and celebrate new values?
2. How did Constantinople, both in monuments and construction, transition ancient city construction into the medieval world?

Lessons and Legacies of Ancient Urban Life

Lecture 24

As we've seen, many of the elements that define our modern cities are based on decisions made in antiquity. And to study the range of urban life in antiquity is to learn about our own world and our choices in how to live. With the emphasis on sustainability, green building, and the New Urbanism, many aspects of the ancient urban world seem ripe for integration into our urban lives. In this lecture, we'll consider two recent cities that incorporate the ancient past, Venice and London. We'll also see what lessons we can draw from ancient cities that might make a difference in how we live in our communities today or plan new communities for the future.

Venice

- The city of Venice displays a lack of rational planning that would be at home at Çatalhöyük. Its founding was, as the Roman historian Livy said of Rome itself, more of an occupation than a planned settlement.
 - The islands that came to make Venice were gradually settled starting in the 6th century A.D. by refugees from the German invasions of northern Italy. It grew gradually and without a plan, and a plan was never imposed on it.
 - This is surprising in this extraordinarily rich city, one of the great powers in the medieval Mediterranean, controlling an empire and a vast trading fleet and contacts. But the city needed more than commerce to achieve legitimacy. For that, it looked back to some of the great cities of antiquity.
- The center of Venice is St. Mark's cathedral (San Marco) and the doge's palace next door. San Marco has developed the importance it has because in A.D. 828, Venetian merchants "acquired" the body of the evangelist Saint Mark from its burial place in Alexandria and brought it to Venice, where it became the centerpiece of the religious identity of the city.

- Note that the body came from Alexandria, then the premier city and harbor in the Mediterranean, a status to which Venice and her merchant class aspired.
- Religious identity and ancient culture were still powerful elements to be transmitted to a city, giving it legitimacy and status.
- In addition to the relics of Saint Mark, San Marco also has many rather odd works of art that literally don't quite fit in. Some of these protrude out of the walls of the church, inside and out.
 - These include the four porphyry statues of Roman emperors and the four gilded bronze horses that for centuries stood about the front door. Both of these were part of the loot Venice brought back from the sack of Constantinople in A.D. 1204.
 - The horses were originally part of a sculpture in the Hippodrome of Constantinople that featured four horses pulling a chariot. Some scholars think that the horses were brought to the city from Rome by Constantine when he refounded it as the new capital of the Roman Empire.

London

- London has its origins as the Roman city of Londinium, although this city was abandoned by the Romans in the 5th century A.D. and was apparently unoccupied for some time thereafter. Modern London's layout of curving streets that follow topography rather than an orthogonal plan is based on the Anglo-Saxon city established there in A.D. 500.
- The city grew without any plan or urban design. In fact, the greater London area is really a patchwork of many smaller communities that have been joined together into this metropolis. With this *synoecism* (the gathering of small communities into one city), the temptation to view London as the inheritor of Alexandria or Olynthus is strong.

- Indeed, the comparison to Alexandria is a fair one. For most of the 19th century, London was the largest city in the world, and in the same period, it finally delivered an infrastructure—particularly a system for the delivery of fresh water—that was comparable to that in Alexandria or Rome. Further, London gained much of its cultural authority from the ancient world, including an obelisk from Alexandria.

Lessons from Antiquity

- When we think back on successful cities, location is key, but what seems even more important for long-term sustainability is that the larger the city, the more critical it is to establish smaller communities within it.
 - As mentioned in Lecture 21, urban planners calculate that the most someone can be expected to walk in a neighborhood for goods and services is about a quarter of a mile. That is remarkably close to the neighborhood arrangement we think may have existed in Uruk, the districts in Alexandria, and the pedestrian city of Timgad.
 - Our insistence on corridor development (commercial areas that flank busy roads) and isolating zoning laws sets up the necessary preconditions for collapse. Mixed-use areas, where people live, shop, work, and worship in neighborhoods, seem to be more successful. And we in the developed West now seem to be returning to such areas.
- To gain a sense of what it might have been like to experience an ancient city, we need to travel to a place like Jodhpur, in India's northwestern state of Rajasthan. The "residential" streets there have shops on the ground floor and residences above, reminiscent of ancient Rome or Athens. In the past, we might have looked on such an arrangement of urban life as primitive, but perhaps now we see that there's more wisdom to it than we realized.

The Future of Cities

- Is the city here to stay, or will technology and transportation innovations give us a series of changes that will enable us to stay in touch while living in ever-greater isolation? It seems, in fact, that technological developments won't overcome the desire of people to live in communities, especially ones that share their values and identity.
- For some time, the trend in city planning has favored elements that would be familiar to a city dweller from antiquity. In fact, the size, scale, and design of such places as Glenwood Park in Atlanta, Georgia, are remarkably similar to the *insula* model at Rome and Ostia and the best mixed-use neighborhoods from antiquity.
- This form of the New Urbanism is, in many ways, a backlash against the Modernist urban planning model that dominated in the mid-20th century. That trend was based on the philosophy of urban planning as a rational, science-based practice.
 - Initially a reaction against overcrowded city centers, Modernism was inspired to liberate people from the inner city. The result of its application is low-density sprawl and a strict separation of land uses. Tremendous numbers of single-family homes were placed together in neighborhoods that were far from commercial and civic districts.
 - This new urban form had elements based on the work of Hippodamus of Miletus, such as the emphasis on ideal, rational design and the creation of separate-use zones for civic, commercial, or residential areas. But Modernist urban design carried those elements to an extreme that Hippodamus never imagined.
- Modernism also led to the gated community, a primarily suburban phenomenon. In most cases, the homes and their facilities in these communities are off limits to nonresidents for reasons of security, comfort, and prestige. This increasingly pervasive form of design relies on a tendency toward separation and segregation.

- The same tendency is seen in non-gated communities that celebrate the level of wealth of their inhabitants. We've all seen real estate development signs that advertise "houses from the 260s to the 290s." The implicit message is that if you can afford to live there, everyone in the development will be like you.
- This is an attractive notion, but it does not necessarily create a true community because these developments often do not have the amenities necessary for sustaining modern life, nor do they provide common areas for gathering. The residents often spend most of their time in their own homes rather than engaging with their neighbors.
- This form of segregation is antithetical to the New Urbanism, which provides not only mixed-use neighborhoods but also mixed-wealth neighborhoods, from large houses to small apartments. The idea in these walkable neighborhoods is that



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In New Urbanist developments, the residences are placed on small lots linked by sidewalks to encourage pedestrian rather than vehicular travel.

social contact will lead to a desire to solve the community's problems rather than to escape them.

- When applying lessons from ancient cities to modern urban life, we should keep in mind that ancient cities failed in a number of ways. For example, the lack of zoning laws in antiquity is a failure that we have, for the most part, avoided. Modern zoning laws aren't always perfect, but they generally prevent, for example, potentially dangerous industrial facilities from being placed next to densely occupied housing.
- Other failures of antiquity, we have, unfortunately, duplicated. The construction and abandonment of company towns, such as Kahun and Deir el-Medina, have many parallels in modern company towns, from Copper Mountain, British Columbia, to Fordlandia, Brazil. Perhaps one way to avoid abandonment is to build such towns using modular construction.
- Some city failures that have been replicated may be unavoidable. Uruk and the Harappan cities seem to have collapsed when the rivers they were built next to changed course. The same disaster befell Rodney, Mississippi; Bend City, California; and La Paz, Arizona.
- One of the major themes of this course has been the role of religion and religious structures in creating cities. Some scholars conclude that the need for communal labor to construct religious buildings was a fundamental driver in the creation of cities.
 - Today, houses of worship are no longer the largest buildings in the community. What will replace such structures in terms of their centrality and ability to define the community? Some cities have addressed this question directly, and their answers tell us a great deal about community values.
 - One example is Philadelphia, which had an unwritten rule for much of the 20th century that no building should be taller than the city hall (548 feet). The rule lasted until 1987—a remarkable run and a tribute to respect for both civic

government and William Penn, the founder of the state and the city, whose statue capped city hall.

- The tallest building since 2008 is the Comcast Center, headquarters for the cable company. This raises some interesting and frankly existential questions for the community: Has Philadelphia replaced its respect for William Penn and government with an admiration for Comcast? Is power in the city is now available to the highest bidder? Has Philadelphia lost an element of respect for community? Is that element worth restoring?
- The next time you walk around your city or another you happen to be visiting, cast your mind back to these lectures and think about what you would change if you could. Then, consider what you can do to make that change a reality—to participate yourself in shaping urban history.

Suggested Reading

Knox and McCarthy, *Urbanization*.

Montgomery, *Happy City*.

Smith, *City*.

Speck, *Walkable City*.

Questions to Consider

1. In what ways are design elements and cultural materials from antiquity used to convey city status and authority?
2. What lessons from the cities of the ancient world have we learned in modern cities? Are there any successful innovations that we have forgotten or failures that we are repeating?

Bibliography

Aldrete, Greg. *Daily Life in the Roman City: Rome, Pompeii, and Ostia*. Norman, OK: University of Oklahoma Press, 2008. An excellent introduction to both the buildings and life in these three Roman cities. Well written and supported, with all ancient sources translated.

Algaze, Guillermo. *Ancient Mesopotamia at the Dawn of Civilization: The Evolution of an Urban Landscape*. Chicago: University of Chicago Press, 2008. Makes a persuasive case that the river-based civilizations of southern Mesopotamia, especially Uruk, were uniquely positioned to thrive and that many of the factors we consider components of urban life developed there.

Alston, Richard. *Soldier and Society in Roman Egypt: A Social History*. New York: Routledge, 1995. Uses both archaeology and rich documentary sources to argue that Roman soldiers were well integrated into communities in Roman Egypt, including Karanis.

———. *The City in Roman and Byzantine Egypt*. London, New York: Routledge, 2002. Thanks to surviving texts, the author is able to illuminate both urban development in this period and the creation of an urban society, including the social lives of ordinary city dwellers.

Amarna Project. <http://www.amarnaproject.com/>. Includes a downloadable visitor guide that provides an almost literal step-by-step illustrated tour of the city (http://www.amarnaproject.com/images/downloadable_resources/tourist%20route.pdf), as well as guides to the tombs, including the Royal Tomb.

Aruz, Joan, ed. *Art of the First Cities: The Third Millennium B.C. from the Mediterranean to the Indus*. New York: Metropolitan Museum of Art; New Haven: Yale University Press, 2003. A catalog of an exhibition that concentrated on the contemporaneous art of the Sumerian city-states and the Indus Valley cities at Mohenjo-daro and Harappa.

Aufrecht, Walter E., Neil A. Mirau, and Steven W. Gauley, eds. *Urbanism in Antiquity: From Mesopotamia to Crete*. Sheffield, UK: Sheffield Academic Press, 1997. Seventeen essays on the history of urbanism in the ancient Near East. Topics addressed include the influence of agriculture intensification, trade, craft specialization, and writing on the rise of cities.

Ault, Bradley A., and Lisa C. Nevett, eds. *Ancient Greek Houses and Households: Chronological, Regional, and Social Diversity*. Philadelphia: University of Pennsylvania Press, 2005. Includes chapters discussing and analyzing the three house/workshop complexes near the agora at Athens. The entire range of the book spans from the Greek Archaic to Hellenistic periods.

Cahill, Nicholas. *Household and City Organization at Olynthus*. New Haven: Yale University Press, 2002. Relies on the excavated houses and artifacts from Olynthus to draw conclusions about daily life, the organization of domestic space, and economic and social patterns at Olynthus.

Çatalhöyük: Excavations of a Neolithic Anatolian Höyük. <http://www.catalhoyuk.com/>. The official site of the excavations of this critically important site. The excavations, carried out since 1993 by Ian Hodder, are presented here by images and publications, as might be expected, but also with the database of finds.

Connolly, Peter, and Hazel Dodge. *The Ancient City: Life in Classical Athens and Rome*. Oxford: Oxford University Press, 1998. This book combines clear prose descriptions and analysis with the best reconstruction drawings ever made of the material from these two cities.

De la Bedoyere, Guy. *Cities of Roman Italy: Pompeii, Herculaneum, and Ostia*. London: Bristol Classical Press, 2010. Unlike other works with almost identical titles, this is less an analysis of architecture or city planning and more an examination of social structures, public institutions, identity, and status of the inhabitants of these cities.

Doumas, Christos. *Thera: Pompeii of the Ancient Aegean*. New York: Thames & Hudson, 1983. An account of the remarkable discoveries on

Akrotiri by the man who directed excavations there for more than 25 years. Excellent summary of the archaeology and finds.

———. *The Wall Paintings of Thera*. Athens: The Thera Foundation, 1992. The director of the excavation introduces the most important material from the city of Thera—its extraordinary wall paintings—in a book that discusses their subjects, as well as where and how they were found.

Edwards, Catherine. *Writing Rome: Textual Approaches to the City*. Cambridge: Cambridge University Press, 1996. In this book, Edwards explores how Rome was described and what it meant to ancient authors, including Cicero, Vergil, and Juvenal. The meanings and association found in its buildings and public spaces, both beautiful and not, are discussed.

Empereur, Jean-Yves. *Alexandria Rediscovered*. New York: George Braziller, 1998. Although it looks like a coffee table book of the remains of the ancient city, this source also contains a history of archaeology in Alexandria and the results of recent underwater excavations, written by the archaeologist in charge of them.

———. *Alexandria, Jewel of Egypt*. New York: Harry N. Abrams, 2002. A tiny gem of a book containing brief but accurate text passages and superb images, including reconstruction drawings, of Alexandria. In scope, it is a survey of the entire history of Alexandria, using up-to-date scholarship.

Fentress, Elizabeth W. B. “Frontier Culture and Politics at Timgad.” http://www.academia.edu/1564390/Frontier_Culture_and_Politics_at_Timgad. 1984. A detailed study of the inscriptions at Timgad, revealing the patterns of beneficence in the community and postulating the inhabitants’ desire to project Romanitas above any local or mixed cultural identity.

Forsyth, Phyllis. *Thera in the Bronze Age*. New York: P. Lang, 1997. Concentrates on the eruption that destroyed Thera. Written for the general public, the book combines geology and archaeology.

Fraser, P. M. *Ptolemaic Alexandria*. Oxford: Clarendon Press, 1972. A massive three-volume work that includes everything the author knew about

the city after his years of research. Exhaustive and sometimes exhausting, but almost everything that was known up to the date of publication is here.

Gates, Charles. *Ancient Cities: The Archaeology of Urban Life in the Ancient Near East and Egypt, Greece and Rome*. New York: Routledge, 2003. A book version of the author's long-taught and popular course on ancient cities. Provides a survey of the material across a long period of time and wide geographical area.

Gazda, Elaine K., ed. *Karanis, an Egyptian Town in Roman Times: Discoveries of the University of Michigan Expedition to Egypt (1924–1935)*. Ann Arbor: Kelsey Museum of Archaeology, University of Michigan, 2004. Online version available at <http://www.umich.edu/~kelseydb/Exhibits/Karanis83/KaranisExcavation/KaranisExcavation.html>. A catalog from an exhibition at the Kelsey Museum, which has all the material excavated from Karanis in its collections. It includes chapters on the economy, daily life, and religion in the city.

Green, Peter. "The New Urban Culture: Alexandria, Antioch, Pergamon." *Grand Street* 5 (2, winter 1986): 140–152. Compares the Hellenistic cities founded by the Greek kings with the royal cities of the Near East, including Uruk.

Juvenal. *The Sixteen Satires*. Translated by Peter Green. London: Penguin Books, 1998. Satirical poems from the early 2nd century that comment on Roman society and the city of Rome itself.

Kemp, Barry. *The City of Akhenaten and Nefertiti: Amarna and Its People*. New York: Thames & Hudson, 2012. Written by the excavator of Amarna for more than 30 years, this account concentrates on the people of the city, not the architecture. Kemp vividly introduces the royal family, including Tutankhamun, and shares what we know about other figures, including the high priest Panehsy, the vizier Nakht, the general Ramose, and the sculptor Thutmose.

———. *Ancient Egypt: Anatomy of a Civilization*. New York: Routledge, 1991. The first source to read about Kahun, Deir el-Medina, and Amarna.

Kemp is superb on all of them, including both the physical remains and the social world of each city.

Knox, Paul L., and Linda McCarthy. *Urbanization: An Introduction to Urban Geography*. Boston: Pearson, 2012. The authors examine urban trends and their outcomes in both developed and less-developed countries to understand, analyze, and interpret the landscapes, economies, and communities of towns and cities around the world.

Laurence, Ray, and David J. Newsome, eds. *Rome, Ostia, Pompeii: Movement and Space*. Oxford: Oxford University Press, 2011. As advertised, this book contains 15 essays on movement, street life and culture, traffic, walking, and engagement with the city from these three key examples of Roman cities in Italy.

Lewin, Ariel. *The Archaeology of Ancient Judea and Palestine*. Los Angeles: J. Paul Getty Museum, 2005. The book begins with a long historical introduction to the area, then proceeds site by site, providing the state of knowledge on the sites, along with stunning photographs.

MacMahon, Ardle, and Jennifer Price, eds. *Roman Working Lives and Urban Living*. Oxford: Oxbow Books, 2005. Another collection of essays, concentrating on shops, workshops, crafts, industry, and production in the Roman city.

Marinatos, Nanno. *Art and Religion in Thera: Reconstructing a Bronze Age Society*. Athens: D. & I. Mathioulakis, 1984. The excavator of the site for many years wrote this book to contextualize the wall paintings and the spaces in which they were found with religious beliefs and rituals.

McIntosh, Jane R. *The Ancient Indus Valley: New Perspectives*. Santa Barbara, CA: ABC-CLIO, 2008. Attempts to create a model of daily life in this civilization, from agriculture to crafts and urban architecture. It emphasizes the complexity of the society and its war-free nature.

Meiggs, Russell, *Roman Ostia*. 2nd ed. Oxford: Clarendon Press, 1997. A superb survey of the city of Ostia, synthesizing the archaeological reports of

the large excavations of the early 20th century, along with the author's own on-site study.

Minnen, P. van. "House-to-House Enquiries: An Interdisciplinary Approach to Roman Karanis." *Zeitschrift für Papyrologie und Epigraphik* 100 (1994): 227–251. This article by a papyrologist uses texts, architecture, and small finds to examine houses in the city.

———. "Deserted Villages: Two Late Antique Town Sites in Egypt." *Bulletin of the American Society of Papyrologists* 32 (1995): 41–56. An analysis of Karanis that places it in its historical context and draws comparisons to another contemporary city. It includes a discussion of the possible dates of abandonment of Karanis and Soknopaiou Nesos.

Montgomery, Charles. *Happy City: Transforming Our Lives through Urban Design*. New York: Farrar, Straus and Giroux, 2013. This book is part of a recent trend calling for the return to compact cities with mixed-use neighborhoods in which people live, work, shop, and worship in walkable areas.

Morgan, Janett. *The Classical Greek House*. Exeter: Bristol Phoenix Press, 2010. Using texts and archaeology and attempting to avoid modern definitions, the author asks questions about the intersections of public and private, male and female, and home and city in the Greek house.

Murray, Oswyn, and Simon Price, eds. *The Greek City from Homer to Alexander*. Oxford: Clarendon Press, 1991. A collection of 14 essays on the Greek city, with some on private space, public property, religion, and the *demos* at Athens.

Nevett, Lisa C. *House and Society in the Ancient Greek World*. Cambridge: Cambridge University Press, 1999. Includes two chapters on Olynthus, both on individual houses and on what we can learn about society through their analysis. A number of chapters explore the concept of *oikos* and its applicability to the remains found on sites throughout the Greek world.

———. *Domestic Space in Classical Antiquity*. Cambridge: Cambridge University Press, 2010. Six chapters that look at the topic from the Greek Iron Age to the late Roman world with stops at the classical Greek *andron*, Pompeian *domus*, and Roman North Africa.

Parkins, Helen M., ed. *Roman Urbanism: Beyond the Consumer City*. New York: Routledge, 1997. A set of essays on cities and city life, touching on class and social mobility, household organization, ritual and power, and city economies.

Possehl, Gregory L., ed. *Ancient Cities of the Indus*. Durham, NC: Carolina Academic Press, 1979. A collection of essays edited by the man who excavated these sites for more than 50 years. It serves as an introduction to the cities of the Indus Valley culture.

———, ed. *Harappan Civilization: A Contemporary Perspective*. New Delhi: Oxford & IBH Publishing Co., 1982. A synthesis of virtually everything known about this civilization by a man who excavated its sites for 50 years. Includes an examination of the economic, architectural, artistic, religious, and intellectual components of this culture.

Preziosi, Donald, and Louise Hitchcock. *Aegean Art and Architecture*. Oxford, New York: Oxford University Press, 1999. Covers architecture and artifacts, including pottery, paintings, and reliefs, from mainland Greece, Crete, and the Cyclades in the period from 3300 to 1000 B.C.E.

Scobie, Alex. "Slums, Sanitation and Mortality in the Roman World." *Klio* 68 (2, 1986): 399–433. An amazing article that collects the ancient evidence, including both written sources and physical remains, that informs the issues of death and disease in the Roman city. Endlessly fascinating reading. All of the ancient sources are translated.

Smith, P. D. *City: A Guidebook for the Urban Age*. London: Bloomsbury Press, 2012. An illustrated history of the city from earliest days to modern times, with a focus on the latter. Organized thematically, with essays on sacred sites, shops, and transport but also the theater, flash mobs, and skateboarding.

Speck, Jeff. *Walkable City: How Downtown Can Save America, One Step at a Time*. New York: Farrar, Straus and Giroux, 2012. A vocal proponent of the New Urbanism, Speck argues for a return to the traditional American downtown of mixed-use spaces and close neighborhoods to re-create communities.

Thomas, Alexander. *The Evolution of the Ancient City: Urban Theory and the Archaeology of the Fertile Crescent*. Lanham, MD: Lexington Books/Rowman & Littlefield Publishers, 2010. Uses both urban theory and archaeology to analyze the ancient city, with Uruk as one focus. The goal of the book, however, is to ask what we can learn about modern cities by tracing the development of ancient cities.

Tomlinson, Richard A. *From Mycenae to Constantinople: The Evolution of the Ancient City*. New York: Routledge, 1992. Using a series of case studies from Greek and Roman cities, this book traces the types and functions of buildings and city layout, ending with Constantinople.

Turnbull, Stephen. *The Walls of Constantinople, AD 324–1453*. Oxford: Osprey Publishing, 2004. An in-depth examination of the fortifications that protected the city for more than 1,000 years.

Tsakirgis, Barbara. “Living and Working around the Athenian Agora: A Preliminary Case Study of Three Houses.” In *Ancient Greek Houses and Households: Chronological, Regional, and Social Diversity*, edited by Bradley A. Ault and Lisa C. Nevett, pp. 67–82. Philadelphia: University of Pennsylvania Press, 2005. A detailed study based directly on the excavation reports of these three Athenian houses. Notes the complex nature of their functions and the economic aspect that defined the house.

Van de Mieroop, Marc. *The Ancient Mesopotamian City*. Oxford: Oxford University Press, 1997. The author argues that the city determined every aspect of Mesopotamian civilization and that the political and social structure, economy, literature, and arts of Mesopotamian culture cannot be understood without acknowledging their urban background.

Vrettos, Theodore. *Alexandria: City of the Western Mind*. New York: The Free Press, 2001. A detailed account of the cultural and ethnic life of ancient Alexandria. Although Alexander and Cleopatra get their due, the life of the mind and spirit in the city is the real subject, with almost equal attention paid to Greek, Roman, and Jewish components.

Wycherly, R. E. *How the Greeks Built Cities*. New York: W. W. Norton & Co., 1962. The classic book on Greek cities. Covers all the key components of the city one at a time so that the book essentially builds a city as you read through it, from city planning, to public buildings, and finally, to houses.

Yoffee, Norman. *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations*. Cambridge, UK; New York: Cambridge University Press, 2005. A bold book that attempts to counter all major models of city development, including the definition of the early state and the role of the Big Man in early communities. It also explores case studies on the role of women in ancient societies.